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Summary Results of the 1979 NACUBO Comparative Performance Study and Investment Questionnaire

Typical Portfolio of Reporting Institutions—1979

Annual return for year ended June 30, 1979	10.80%
Annual return over prior three years	6.00%
Annual return over prior five years	8.02%
Annual return over prior ten years	4.77%
Asset composition as of June 30, 1979	
Stocks	51.8%
Bonds	30.1%
Cash equivalents	14.7%
Miscellaneous	3.4%
Portfolio beta coefficient—based on prior ten years' data	0.72
Stock turnover during prior year	18.0%
Bond turnover during prior year	15.5%
Endowment principal per FTE student (independent institution)	$11,700
Endowment principal per faculty member (independent institution)	$156,800

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Preface

This summary report contains information on the investments of college and university endowment funds.

The NACUBO Comparative Performance Study (CPS) has been prepared annually since 1971. It initially provided participating institutions with comparative performance data on their investment pools; in recent years, the CPS has been expanded to include a detailed investment questionnaire, which covers other pertinent information relating to endowment funds and their management. Each year, considerable information is published in the *detailed* CPS report, which includes a variety of data of interest to participating institutions. The *summary* CPS report is designed for those who are interested in and concerned about endowment funds, but who prefer a condensed summary of findings.

Each participating institution has been provided with one copy of the detailed CPS report. Information in that report, coded for confidentiality, can be referred to when making comparisons to the larger endowment data base. Copies of the detailed CPS report are available from NACUBO, One Dupont Circle, Washington, D.C. 20036, at $20 each for NACUBO members and $50 each for nonmembers; all orders must be prepaid.

Members of the Investment Committee hereby convey their thanks to the many persons who made this study possible. These include business officers who voluntarily supplied data and answered the questionnaire; Bruce M. Dresner, of Dartmouth College, who served as survey coordinator in producing the detailed report; and Dartmouth College, for the use of its computer.

Investment Performance

NACUBO compiles data on endowment funds each year. A detailed investment questionnaire is sent in early fall to all endowed institutions of higher education that are known to be interested in the CPS. Timing of the questionnaire is based on a June 30 fiscal year-end, and responses are requested by the end of the calendar year in order to allow institutions to use information prepared as part of their fiscal year-end financial reporting. The ability of NACUBO to report in a timely fashion in the Comparative Performance Study is largely determined by the responsiveness of the participants in returning completed questionnaires.

In the 1979 study, 147 institutions participated and supplied the market value of their endowments. These institutions had endowment funds in excess of 12.4 billion dollars, or more than 70% of the total endowment wealth of all colleges and universities in the United States, according to the most recent HEGIS data. A list of participating institutions, ranked by order of endowment size, is provided in table 1.

Table 1

Endowment and Life Income Fund Assets
Ranked by Endowment Market Value at June 30, 1979

(000 omitted)

	Institution	Life Income Funds	Endowment Funds
1	Harvard University	$20,791	$1,457,690
2	The University of Texas System	0	1,054,480
3	Yale University	6,700	577,600
4	Columbia University	5,000	504,000
5	Princeton University	3,578	473,928
6	University of California System	0	384,637
7	Massachusetts Institute of Technology	10,344	374,373
8	University of Rochester	4,704	323,970
9	University of Chicago	11,800	311,400
10	Cornell University	19,000	288,000
11	New York University	1,398	272,606 (A)
12	Rice University	2,000	270,573
13	Northwestern University	12,027	256,544 (A)
14	Washington University	4,502	220,923
15	Rockefeller University	132	201,661
16	Dartmouth College	15,881	173,642
17	University of Pennsylvania	7,733	168,025
18	Johns Hopkins University	7,135	164,812
19	California Institute of Technology	27,513	164,051
20	University of Notre Dame	3,637	137,526
21	University of Southern California	15,990	130,053
22	University of Delaware	94	127,859
23	Wellesley College	7,481	126,260
24	Duke University	6,959	122,880
25	Case Western Reserve University	9,866	118,731
26	University of Virginia	124	117,746
27	Carnegie-Mellon University	921	112,787
28	Wesleyan University	529	106,662
29	Brown University	0	106,522
30	University of Michigan	6,486	100,457
31	University of Minnesota	188	95,151

	Institution	Life Income Funds	Endowment Funds
32	Smith College	$ 3,212	$ 91,995
33	University of Pittsburgh	294	91,809
34	University of Cincinnati	4,117	88,016
35	Rensselaer Polytechnic Institute	3,546	87,317
36	Oberlin College	3,819	85,478
37	Williams College	2,172	84,703
38	Southern Methodist University	406	78,628 (M)
39	Amherst College	1,957	77,321
40	Berea College	2,247	76,633
41	Swarthmore College	3,075	75,583
42	Vassar College	7,610	74,832
43	University of Richmond	593	71,249
44	Ohio State University	1,178	67,681
45	Brandeis University	3,811	59,632
46	Rochester Institute of Technology	789	57,795
47	Wake Forest University	582	56,983
48	Lehigh University	5,213	55,679
49	State University of New York at Buffalo	83	53,401 (Mar)
50	Lafayette College	1,481	52,859
51	Mount Holyoke College	2,902	52,532
52	Syracuse University	9,316	49,380
53	Carleton College	2,377	48,889
54	Middlebury College	1,670	48,415
55	Bryn Mawr College	1,142	42,999 (M)
56	Georgetown University	1,596	40,347
57	Trinity College	673	38,931
58	Boston University	1,397	37,851
59	Cooper Union for the Advancement of Science and Art	91	37,561
60	University of Miami	3,687	35,845 (M)
61	Hamilton College	2,368	35,744
62	Academy of the New Church	0	34,870
63	Tufts University	902	34,267
64	Bucknell University	694	32,657
65	University of Wisconsin System	0	32,575
66	Rutgers, The State University	6	30,626
67	Hampton Institute	0	30,320
68	Occidental College	4,953	29,095
69	Colorado College	271	29,031
70	Willamette University	1,184	28,533 (M)
71	Baylor College of Medicine	0	26,172
72	Whitman College	4,900	25,545
73	Drew University	0	25,538
74	Teachers College—Columbia University	193	24,158
75	Colby College	1,524	23,485
76	University of Missouri	1,734	23,144
77	University of Denver	697	23,090
78	Barnard College	511	21,909
79	University of Vermont	203	20,707
80	University of Alabama System	0	19,903
81	The College of Wooster	0	19,898
82	University of Illinois	174	19,849
83	Sweet Briar College	136	18,520
84	University of Santa Clara	3,541	17,806
85	University of Tennessee	10,297	17,373
86	Simmons College	4	17,108
87	Hendrix College	1,393	17,100 (J)
88	Albion College	1,173	17,097
89	Dickinson College	1,553	17,090
90	Ohio University	0	16,750
91	Marquette University	61	16,587

	Institution	Life Income Funds	Endowment Funds
92	Denison University	$ 2,352	$ 16,518
93	George Washington University	52	16,409
94	University of Maryland	0	16,311
95	Ohio Wesleyan University	1,680	15,701
96	Rhode Island School of Design	35	15,522
97	University of Nevada System	374	14,634
98	Pennsylvania State University	1,139	14,301
99	Michigan State University	366	14,172
100	Clark University	1,108	13,906
101	Wheaton College	176	13,689
102	University of Wisconsin Foundation	2,206	13,673
103	Cornell College	0	13,169
104	Franklin and Marshall College	94	12,928
105	Spelman College	0	12,460
106	Oregon State Board of Education	0	12,408
107	Connecticut College	67	12,122 (M)
108	Alma College	128	12,043
109	Baldwin-Wallace College	573	11,920
110	Reed College	1,482	11,623
111	Indiana University	1,367	11,464
112	University of Puget Sound	1,677	11,359 (A)
113	Mercer University	332	11,265
114	Drake University	160	11,256 (M)
115	Allegheny College	0	11,149
116	University of Arizona	0	10,309
117	Washburn College	0	10,109
118	University of Maine	0	10,050
119	University of Tulsa	116	9,689
120	Kenyon College	503	8,667
121	Muhlenberg College	0	8,301
122	St. Norbert College	0	7,919
123	University of Dayton	0	7,613
124	Alfred University	0	6,213
125	University of Nebraska	0	6,022
126	University of Evansville	75	5,991
127	Whittier College	0	5,622
128	Carroll College	252	5,461
129	Doane College	536	5,254
130	University of Arkansas	235	5,117
131	Virginia Military Institute	0	5,003
132	American University	0	4,945
133	Hope College	1,158	4,395
134	Washington State University	41	4,226
135	University of Akron	0	3,537
136	Philadelphia College of Textiles and Science	0	3,440
137	Oregon State University Foundation	3,775	3,431
138	Arizona State University	452	2,684
139	University of Connecticut	0	1,679
140	University of Tampa	62	1,617
141	University of Oregon Development Fund	0	1,595
142	University of Mississippi	0	1,536
143	Oakland University	0	1,522
144	University of Akron Development Foundation	302	1,484
145	Eastern Michigan University	40	1,419
146	Monmouth College	0	1,360
147	State University of New York at Binghamton	18	575

(A) = Figures are as of August 31, 1979.
(J) = Figures are as of July 31, 1979.
(Mar) = Figures are as of March 31, 1979.
(M) = Figures are as of May 31, 1979.

Summary of Performance of Endowment Funds

The purpose of the NACUBO Comparative Performance Study is to aid administrators in evaluating their investment pool's performance. It is believed that measuring comparative performance among pools with similar characteristics, objectives, and risk levels can add an important, useful dimension in reviewing the investment results achieved with respect to meeting performance goals.

- For the year ending June 30, 1979, the 169 college and university pools participating in this study had an average rate of return of 10.8%. This rate of return exceeds the 10.5% average rate of return earned by a composite of the S&P 500 Index, the Salomon Brothers Bond Index, and the average treasury bill rate using the same asset composition as the average investment pool (52.4% in equities, 30.3% in long-term bonds, 14.0% in cash and equivalents, and 3.3% in other assets).
- The study also shows that for the three-year period ending June 30, 1979, the average rate of return of the college and university pools of 6.0% outperformed the composite market index of 5.8%. However, for the five-year period ending June 30, 1979, the average return for the investment pools of 8.0% was similar to that earned by the composite index.
- Taking into consideration investment objectives, those pools whose stated objective was "total rate of return" outperformed those whose stated objective was "balanced." The "total rate of return" pools, on average, were 66% invested in equities over the past five years while the "balanced" pools were only 53% invested in equities.
- The study reveals that, on average, the larger pools (over $50 million) outperformed the smaller pools during the past year. However, for the three-year and five-year periods, the pools ranging in size from $10 to $50 million did as well as the larger pools. The pools under $10 million underperformed the other two larger-size pools in each of the three time periods reviewed.
- Those investment pools managed internally during the year ending June 30, 1979, performed, on average, about the same as those managed externally. However, for each of the two previous years, the internally managed pools outperformed those managed externally.
- Investment pools having higher than average stock and bond turnover rates outperformed, on average, those pools having lower turnover ratios.

Because endowment funds are invested on a long-term basis, it is important to consider investment returns beyond just one year. In table 2, information is provided on the performance of endowment funds over a series of

Table 2

Average Performance by Period

	Period Ended June 30, 1979			
	One Year	Three Years	Five Years	Ten Years
All investment pools measured	10.80%	6.00%	8.02%	4.77%
By investment objective				
Total return pools	11.91	6.35	8.37	4.75
Balanced or income pools	10.25	5.82	7.84	4.78
By size				
Over $50 million	12.18	6.19	8.12	4.86
$10 to $50 million	10.63	6.04	8.15	4.66
Under $10 million	9.92	5.79	7.71	4.88
Comparative indexes				
Dow Jones Industrial Average	9.05	−.62	5.95	4.03
S&P 500 Index	13.47	4.40	8.31	4.49
Salomon Brothers Bond Index	6.75	6.62	8.85	n/a
Kuhn Loeb Bond Index	6.63	7.02	9.67	n/a
Other benchmarks				
The Common Fund for Equity Investments	16.92	10.42	11.64	n/a
The Common Fund for Bond Investments	8.72	n/a	n/a	n/a

different time periods. The appendix provides a detailed listing of the performance of all participating institutions, with funds coded for confidentiality.

Although investment performance figures are important and meaningful, this information can be both misinterpreted and overemphasized. Modern investment theory suggests that risk and return are related, and that the amount of return obtained in an investment portfolio is directly influenced by the degree of risk taken. This means that while one institution might achieve a higher (or lower) return than another, this return typically results from a combination of actions, including the allocation of investments among different types of assets, the degree of risk taken, the emphasis on different types of assets within each investment category (e.g., high-yield stocks vs. growth stocks, high-quality vs. low-quality bonds, etc.), and the selection of particular stocks, bonds, and other investments.

While one year is too short a period from which to draw any significant conclusions regarding performance, for the year ending June 30, 1979, 67% of the 169 pools in the CPS outperformed the Dow Jones Industrial Average (the 147 institutions provided data on a total of 169 separate pools). This widely followed benchmark should not be the sole measure used to compare the performance of the average investment pool. A better measure, but still not completely representative for comparative purposes, is the S&P 500 Index. Eighteen percent of the 169 pools outperformed the S&P 500 in 1978-79, which was a period of increasing stock prices. This is not surprising, since most pools maintain a balanced investment mix, and are not totally invested in stocks. About 90% of the endowment investment pools outperformed the Salomon Brothers Bond Index. This is not surprising, due to the large stock component of these funds. For those few pools totally invested in either common stocks or long-term bonds, a direct comparison to the S&P 500 Index or Salomon Brothers Bond Index, respectively, is more valid.

What should be of interest and concern to trustees and those administrators responsible for an investment pool is the return achieved from a blend of market indexes that mimics that of their own pool. In the case of the average pool, this means the return achieved as a result of the investment of its 52% stock component, 30% bond component, 14% cash component, and 3% miscellaneous assets component. On this basis, the one-year return of 10.8% for all pools appears favorable compared with the return of 10.49%, which might be expected on the asset components of the pool shown in table 3.

Table 3

Estimated Asset Component Return of All Investment Pools for the One-Year Period Ending June 30, 1979

Asset Component	Index	Fiscal 1978-79 Total Return Percentage	Average Investment Pool Asset Component	Expected Total Return
Stocks	S&P 500	13.47%	52.4%	7.06%
Bonds	Salomon Brothers	6.75	30.3	2.05
Cash	Average Treasury Bill	9.85	14.0	1.38
Miscellaneous	n/a	0	3.3	0
Total			100.0%	10.49%

Asset Composition

The decision as to what should be the asset composition (or amount invested in stocks, bonds, etc.) of the endowment fund is typically a policy action dictated by each institution's governing board or investment committee. Sometimes this decision is determined in conjunction with the advice of an institution's portfolio manager. Table 4 shows the asset composition of reporting investment pools as of June 30, 1979. The average pool in the 1979 CPS has about 52% of its assets invested in stocks. Some endowment funds are almost

Table 4

Asset Composition of Investment Pools

on June 30, 1979

	All Pools	By Investment Objective		By Size		
		Total Return	Balanced	Over $50 Million	$10 to $50 Million	Under $10 Million
Stocks	51.8%	58.9%	48.2%	60.0%	53.8%	42.3%
Bonds	30.1	22.6	33.7	25.3	26.8	38.4
Cash	14.7	15.5	14.3	11.5	14.7	17.2
Miscellaneous	3.4	3.0	3.8	3.2	4.7	2.1
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

totally invested in stocks, others hold a balance on investment assets, and a few have heavy weightings of bonds or real estate. Both the expected return and volatility of any given investment portfolio will be a function of its asset composition, and each institution will typically establish a permissible allocation of assets as a function of its own need for income and growth of principal. As an example, a need for predictable, stable income will require of investments a certain percentage in bonds, although investment in the stock market might produce a higher total return.

NACUBO compares the asset composition of investment pools from year to year and monitors changes in concentration. The net change in asset composition results from a combination of two factors: the general change in stock and bond prices and a policy shift in investment assets. Using the change in market indexes, an expected change in the value of assets can be computed. When actual compositions are reported for the following year, a comparison can then be made between the expected change and what actually occurred, with net differences computed that can be assumed to have occurred due to policy decisions, such as a change in investment strategy. For the year ended June 30, 1979, endowment funds in general again exhibited a shift in emphasis, increasing cash assets slightly under 2% while decreasing stocks just over 3%, as shown in table 5.

A characteristic related to the composition of the portfolio is diversification of the securities held within each asset category. Some investment portfolios are quite diversified and reflect stock holdings that mirror the market in general. Other investment pools ordinarily concentrate investments into particular industries or segments of the marketplace. Most investment pools are well diversified in their stock and bond holdings: the typical endowment portfolio holds about 45 different common stock names, with even more names included as the size of the portfolio increases; about 25 different bond names are included in the typical endowment portfolio.

Risk Measurement and Return

According to modern investment theory, risk and return are directly related. There are several different techniques to measure risk. One technique assumed to be a proxy for risk is to compare the fluctuation of the portfolio to that

Table 5

Comparison of Asset Composition: 1974 through 1979

Percentage Change — Year Ended June 30

	1974	1975	1976	1977	1978	1979	Total
Stocks	−4.0%	−1.2%	−2.2%	−1.1%	−4.8%	−3.3%	−16.6%
Bonds	1.3	3.9	4.2	0	0.6	1.3	11.3
Cash	3.0	−2.9	−1.7	1.0	−4.2	1.9	5.5
Miscellaneous	−0.3	0.2	−0.3	0.1	0	0.1	−0.2

of the stock market in general, typically using the S&P 500 Index as the market. This comparison generates a measure called the "beta coefficient," which indicates the percentage fluctuation that can be expected and therefore predicted, based on the relative performance of the market. A beta of 1.00 means that the portfolio is just as volatile as the market in general and should be expected to move in unison with the market, if the assets in the portfolio are well diversified. If the market goes up 10%, then the pool should be expected to go up 10%. A beta of 1.10 means that the portfolio is 10% more volatile than the market, while a beta of 0.90 indicates that the portfolio is 10% less volatile, and therefore should not perform as well as the market in a period of rising prices, nor lose as much when market prices decline. In other words, if a specific portfolio is more volatile and therefore is taking more risk, it is expected that this portfolio should have a return that is greater than the market in general. A higher than average return may not mean that the portfolio has achieved an extraordinary success, but rather it might be simply the return that should be expected for the degree of risk taken. If a specific portfolio has an incremental return greater than what might be predicted by the beta coefficient, the excess return can be explained as the value added by management. Beta coefficients have been computed for investment pools in the 1979 CPS. The average beta for all pools is .72 for the ten-year period ended June 30, 1979.

In table 6, beta coefficients are summarized for investment pools in the study. College and university endowment funds appear to be invested for less volatility and risk than the market as a whole. One would expect their performance to be below that of the stock market as a whole in a period of a rising market, as was the case in fiscal 1975, 1976, and 1979, and above the stock market in a period of a declining market, as was the case in fiscal 1977 and 1978.

Table 6
Beta Coefficients

	Ten Years Ending June 30, 1979
All investment pools	.72
By investment objective	
Total return pools	.79
Balanced pools	.69
By size	
Over $50 million	.75
$10 to $50 million	.75
Under $10 million	.63
Comparative indexes	
Dow Jones Industrial Averages	.83
Salomon Brothers Bond Index	n/a
S&P 500 Index	1.00

Stock and Bond Turnover

Investment managers buy and sell securities. Some observers of the marketplace believe that very actively traded portfolios, with high turnover and therefore high transaction costs, will produce a lower total return in the long run. NACUBO has been monitoring turnover for the last three years; for 1979, the stock turnover of the typical endowment fund was 18% of the total value of stock invested, the highest rate since NACUBO began gathering this data in 1975. On average, bond turnover was about 15.5%, with the balanced pools and larger pools having higher turnover. Data accumulated to date do not indicate any correlation, positive or negative, between turnover and performance for endowment funds. It is observed that, in general, endowment funds have lower turnover than other investment pools.

Endowment Characteristics

As part of the ongoing CPS, NACUBO has endeavored to build a data base of information on endowment funds and endowment *wealth*.

One of the most important subjects identified by administrators and others interested in colleges and universities is endowment growth and endowment adjusted for inflation, or "real" endowment growth. The increased size of endowment funds in 1979 appears to be the result of the addition of new gifts to endowment and of appreciation in equity securities offsetting depreciation in the bond security markets. A crude approximation of endowment growth can be made for the six-year period ending June 30, 1979. This calculation is based on information received from prior NACUBO questionnaires and indicates that, as a group, endowment funds at June 30, 1979, have increased about 12% since June 30, 1973. However, in real terms—when inflation is taken into account—endowment funds have actually declined about 30%. To help put this into perspective, table 7 compares the S&P 500, the Dow Jones Industrial Average, the Salomon Brothers High-Grade Bond Index, and endowment funds both before and after inflation. The Consumer Price Index (CPI) and the Higher Education Price Index (HEPI) were used to adjust for inflation. Many authorities believe that the CPI understates the real inflation rate for colleges and universities; if this is the case, then the effect on endowment would be even more severe than shown in table 7.

Table 7
Five-Year Appreciation Comparison
of Indexes and Endowment Before and After Inflation

	6/30/73	6/30/74	6/30/75	6/30/76	6/30/77	6/30/78	6/30/79	Six-Year Percentage Change
Dow Jones Industrial Average	891.71	802.41	878.99	1,002.78	916.30	818.95	841.98	− 5.58%
S&P 500 Index	104.26	86.00	95.19	104.28	100.48	95.53	102.91	− 1.29
Salomon Brothers High-Grade Bond Index	93.70	80.53	85.26	86.82	92.43	84.64	83.15	−11.26
Endowment funds	100.00	83.30	91.05	98.52	102.36	103.79	112.09	12.09
Real endowment based on CPI*	100.00	78.22	78.15	78.95	77.24	73.54	68.94	−31.06
Real endowment based on HEPI*	100.00	77.78	78.28	79.46	77.52	73.67	73.80	−26.20

* CPI (Consumer Price Index) and HEPI (Higher Education Price Index) figures from D. Kent Halstead, *Higher Education Prices and Price Indexes*: 1979 Supplement, Washington, D.C., National Institute of Education, 1979, and *Chronicle of Higher Education*, September 24, 1979.

Table 7 clearly identifies why the rebound from the levels of the 1974 bond and equity markets leaves educational institutions far from whole. That is, $100 of endowment at June 30, 1973, would have the purchasing power of only about $70 at June 30, 1979. Stated another way, endowment would have to rise an additional 45% to maintain 1973 purchasing power in 1979. This devastating loss in purchasing power is being felt throughout the college and university world and helps explain some of the

more recent fiscal problems being experienced by many endowed institutions, especially those that rely more heavily on their endowment to meet current operating expenses.

For private institutions, questions were asked regarding endowment support for faculty and full-time equivalent (FTE) students. Table 8 summarizes this data.

Because each college and university and its alumni are unique, it is often difficult to draw analogies relating to gift-giving among institutions. It is hoped that data gathered over a long period may be useful in identifying trends. Data on gifts to endowment are included in the detailed CPS.

Table 8
All Private Institutions—Endowment Support

	Average Institution	Median of All Participants
Endowment principal per FTE student	$ 20,250	$ 11,700
Endowment principal per faculty member	224,350	156,800
Endowment income per FTE student	1,125	680
Endowment income per faculty member	12,825	9,050
Gifts to endowment as percentage of market value	n/a	3.3%

Appendix: Average Annual Total Return Performance of All Pools for the Period Ending June 30, 1979

#	Code Name	One-Year Return %	#	Three-Year Return %	#	Five-Year Return %	#	Ten-Year Return %
1	E94	25.52	36	7.61	n/a		n/a	
2	C54	24.54	2	12.59	18	11.03	n/a	
3	E26	23.51	8	9.7	30	9.90	77	4.12
4	C40	21.51	81	6.03	3	13.36	4	7.87
5	C74	20.35	5	10.45	41	9.31	1	9.68
6	C35	19.39	1	12.87	7	12.43	n/a	
7	E19	19.22	9	9.62	24	10.28	63	4.52
8	E43	18.66	46	7.12	16	11.16	n/a	
9	E12	18.5	100	5.64	n/a		n/a	
10	E51	18.1	26	8.04	77	8.13	20	5.98
11	E5	17.95	17	8.74	22	10.45	36	5.39
12	C25	17.42	71	6.4	35	9.63	14	6.46
13	C63	17.32	4	10.66	15	11.39	31	5.5
14	C77	17.08	24	8.17	8	12.43	6	7.5
15	E54	16.93	7	10.38	20	10.86	61	4.56
16	COM-FDEQ	16.92	6	10.42	13	11.64	n/a	
17	E45	16.91	18	8.72	12	11.75	33	5.47
18	E37	16.29	54	6.91	56	8.82	n/a	
19	E34	15.97	59	6.77	113	6.87	81	4.04
20	E75	15.83	25	8.08	1	17.24	11	6.8
21	E33	15.4	102	5.55	123	6.47	n/a	
22	E61	15.04	12	9.41	10	12.18	9	6.98
23	C48	14.84	117	5	119	6.64	108	2.54
24	E11	14.68	28	7.87	51	8.96	34	5.46
25	E2	14.39	47	7.11	76	8.14	76	4.16
26	E74	14.37	157	3.26	n/a		n/a	
27	E46	13.9	146	3.91	121	6.53	67	4.42
28	E28	13.88	29	7.84	95	7.56	66	4.42
29	C15	13.76	31	7.8	31	9.89	89	3.79
30	C66	13.68	41	7.34	79	7.95	n/a	
31	SP-IND	13.64	151	3.67	94	7.59	69	4.36
32	E64	13.58	13	9.34	58	8.77	n/a	
33	E36	13.53	40	7.36	107	7.21	83	4.02
34	SP500	13.47	131	4.4	71	8.31	64	4.49
35	E49	13.43	23	8.18	44	9.13	100	3.16
36	E80	13.3	14	9.3	28	10.15	57	4.69
37	E63	13	87	5.98	134	5.83	55	4.75
38	C58	12.97	133	4.31	143	5.41	86	3.92
39	E23	12.82	111	5.22	136	5.79	26	5.68
40	C4	12.78	48	7.09	19	10.91	n/a	
41	E4	12.76	110	5.25	128	6.18	79	4.09
42	C24	12.71	16	8.94	9	12.25	n/a	
43	C18	12.68	3	12.26	2	13.59	2	8.38
44	C72	12.67	33	7.67	17	11.14	5	7.76
45	C82	12.65	62	6.63	91	7.76	102	2.95
46	F9	12.63	168	1.72	159	1.98	110	2.27
47	E77	12.54	44	7.15	109	7.09	n/a	
48	E42	12.36	109	5.28	n/a		n/a	
49	E44	12.29	152	3.6	120	6.54	71	4.35
50	E91	12.25	114	5.1	104	7.28	52	4.83
51	E31	12.18	n/a		n/a		n/a	
52	C56	12.1	32	7.79	39	9.37	28	5.54
53	C13	12.06	27	7.98	23	10.43	3	8.16
54	E66	12.02	142	4.02	150	4.26	n/a	
55	E57	11.82	84	6.03	48	9.03	n/a	
56	C11	11.79	91	5.85	101	7.36	50	4.87

ALL ENDOWMENT POOLS (CONT.)

#	Code Name	One-Year Return %	#	Three-Year Return %	#	Five-Year Return %	#	Ten-Year Return %
57	E85	11.76	69	6.44	66	8.43	n/a	
58	E38	11.72	39	7.46	27	10.2	22	5.94
59	E53	11.57	38	7.48	21	10.71	24	5.76
60	E71	11.54	98	5.67	72	8.2	68	4.4
61	E18	11.44	156	3.31	135	5.83	74	4.18
62	E29	11.44	43	7.29	52	8.94	111	2.25
63	E52	11.43	120	4.95	90	7.79	87	3.9
64	E3	11.36	68	6.45	96	7.53	30	5.52
65	E16	11.35	51	7.05	78	8.03	56	4.7
66	E21	11.29	94	5.78	118	6.79	53	4.8
67	E72	11.17	45	7.14	36	9.55	49	4.92
68	C34	11.09	101	5.63	133	5.84	n/a	
69	E20	11.02	119	4.97	57	8.77	44	4.97
70	E8	10.79	64	6.57	54	8.88	60	4.57
71	C60	10.76	57	6.89	43	9.18	16	6.11
72	C50	10.73	134	4.31	115	6.82	48	4.93
73	E96	10.68	50	7.08	n/a		n/a	
74	C67	10.66	30	7.8	50	8.99	n/a	
75	C2	10.66	122	4.93	60	8.67	29	5.52
76	E55	10.61	161	2.82	146	4.99	114	1.52
77	C51	10.61	96	5.74	87	7.83	n/a	
78	E62	10.57	61	6.63	89	7.8	n/a	
79	C75	10.56	77	6.19	37	9.55	75	4.17
80	C52	10.54	88	5.93	59	8.71	51	4.86
81	C20	10.52	160	2.93	155	3.8	95	3.47
82	C26	10.52	65	6.54	49	8.99	38	5.23
83	C31	10.51	125	4.78	74	8.17	39	5.1
84	E10	10.49	149	3.75	144	5.22	94	3.52
85	C19	10.47	105	5.49	100	7.36	54	4.78
86	C93	10.4	164	2.56	n/a		n/a	
87	C55	10.4	35	7.66	32	9.8	8	7.04
88	E27	10.34	147	3.91	125	6.42	62	4.55
89	C42	10.22	135	4.26	132	5.87	92	3.63
90	E48	10.13	163	2.75	148	4.37	n/a	
91	C41	10.05	11	9.49	4	12.85	10	6.93
92	E95	9.98	107	5.39	83	7.93	73	4.22
93	E68	9.97	90	5.88	102	7.29	105	2.9
94	E6	9.97	162	2.81	116	6.81	40	5.08
95	E24	9.8	20	8.54	14	11.49	n/a	
96	E93	9.78	159	3.02	n/a		n/a	
97	E10	9.78	148	3.88	73	8.19	90	3.7
98	C91	9.73	80	6.04	68	8.36	n/a	
99	E90	9.72	70	6.4	114	6.83	n/a	
100	C44	9.72	10	9.56	5	12.79	88	3.82
101	E14	9.72	139	4.06	46	9.09	84	3.97
102	C43	9.68	55	6.89	80	7.95	n/a	
103	C65	9.67	56	6.89	26	10.24	15	6.3
104	C39	9.64	130	4.52	122	6.49	35	5.46
105	E67	9.59	75	6.35	34	9.66	25	5.69
106	C27	9.56	15	9.1	6	12.73	7	7.22
107	C36	9.46	145	3.92	n/a		n/a	
108	C61	9.4	n/a		n/a		n/a	
109	C86	9.31	21	8.39	38	9.39	17	6.04
110	C78	9.24	124	4.85	152	4.18	106	2.85
111	C10	9.24	95	5.75	n/a		n/a	
112	E7	9.21	170	1.37	149	4.26	n/a	
113	E73	9.2	66	6.53	88	7.82	65	4.44
114	C30	9.2	112	5.17	29	9.9	58	4.64

ALL ENDOWMENT POOLS (CONT.)

#	Code Name	One-Year Return %	#	Three-Year Return %	#	Five-Year Return %	#	Ten-Year Return %
115	C64	9.14	79	6.1	61	8.62	23	5.85
116	E17	9.1	103	5.53	64	8.6	19	5.99
117	E76	9.08	137	4.14	141	5.59	n/a	
118	D-JONES	9.05	171	−0.62	130	5.95	82	4.03
119	C9	9	123	4.86	103	7.28	41	5.04
120	E92	8.91	78	6.12	25	10.25	12	6.55
121	E56	8.86	141	4.03	142	5.45	78	4.1
122	E89	8.85	127	4.6	93	7.65	n/a	
123	C59	8.85	113	5.13	106	7.22	n/a	
124	C17	8.81	83	6.03	124	6.44	104	2.91
125	E1	8.8	92	5.85	111	6.94	98	3.2
126	C33	8.8	97	5.69	n/a		n/a	
127	E25	8.76	58	6.85	47	9.08	80	4.07
128	C88	8.76	89	5.91	81	7.95	n/a	
129	C73	8.72	53	6.94	n/a		n/a	
130	COM-FDBD	8.72	n/a		n/a		n/a	
131	E59	8.65	99	5.64	70	8.32	91	3.68
132	C3	8.61	150	3.73	98	7.48	45	4.97
133	E13	8.6	118	5	85	7.88	43	5.01
134	C71	8.3	155	3.34	131	5.89	n/a	
135	E69	8.24	172	−2.75	160	−0.31	107	2.84
136	C1	8.24	73	6.39	42	9.28	n/a	
137	C37	8.24	115	5.06	n/a		n/a	
138	E81	8.12	138	4.07	140	5.61	103	2.93
139	E47	8.11	167	1.95	156	3.69	93	3.62
140	C16	8.08	144	4	97	7.5	n/a	
141	C84	8.06	128	4.59	112	6.88	32	5.47
142	C49	7.99	126	4.66	147	4.66	96	3.39
143	C62	7.85	60	6.76	67	8.38	n/a	
144	C23	7.84	129	4.57	108	7.15	70	4.35
145	E50	7.72	121	4.95	158	3.64	112	2.19
146	E58	7.67	108	5.31	84	7.93	85	3.92
147	E78	7.49	82	6.03	65	8.59	21	5.94
148	E22	7.44	49	7.08	45	9.1	18	6
149	C80	7.42	158	3.15	127	6.33	109	2.42
150	C5	7.42	85	5.99	126	6.36	42	5.03
151	C92	7.42	72	6.39	105	7.25	n/a	
152	C79	7.41	93	5.83	92	7.68	n/a	
153	C69	7.38	86	5.99	86	7.86	n/a	
154	C89	7.17	104	5.5	69	8.33	n/a	
155	C47	7.07	153	3.48	62	8.62	46	4.96
156	C85	6.82	22	8.24	11	11.89	n/a	
157	SALOMON	6.75	63	6.62	55	8.85	n/a	
158	LEH-KUHN	6.63	52	7.02	33	9.67	n/a	
159	E35	6.47	143	4.02	151	4.23	101	3.01
160	C21	6.23	169	1.46	154	3.93	113	2.03
161	C32	6.2	116	5	99	7.39	47	4.95
162	C70	6.18	76	6.33	110	7	n/a	
163	C38	6.15	37	7.59	53	8.94	27	5.63
164	E84	5.88	136	4.22	139	5.62	n/a	
165	E82	5.86	74	6.37	117	6.8	n/a	
166	E60	5.52	132	4.38	82	7.93	72	4.24
167	E83	5.5	67	6.47	137	5.67	n/a	
168	C46	5.12	106	5.47	138	5.67	n/a	
169	E87	4.93	19	8.72	75	8.16	37	5.36
170	E15	4.92	166	2.43	157	3.67	99	3.17
171	C76	4.69	154	3.39	129	5.96	13	6.51
172	E88	4.57	42	7.33	63	8.61	n/a	

ALL ENDOWMENT POOLS (CONT.)

#	Code Name	Return % One-Year	#	Three-Year Return %	#	Five-Year Return %	#	Ten-Year Return %
173	E32	4.52	34	7.67	40	9.37	59	4.6
174	E86	3.84	n/a		n/a		n/a	
175	E30	3.09	165	2.53	153	4.06	97	3.23
176	C94	0.12	140	4.04	145	5.19	n/a	
	Total Pools (Average Return)							
169		10.80	166	6.00	154	8.02	111	4.77

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Results of the 1979 NACUBO Comparative Performance Study and Investment Questionnaire

The NACUBO Investment Committee wish to convey their thanks to the many who made this study possible. These include the business officers who voluntarily supplied data and answered the questionnaire, Bruce Dresner who serves so capably as survey coordinator, Dartmouth College for the use of its computer, and the organizations which provided financial support for this year's study.

Sponsorship Support: Organizations which contribute $1,000 or more
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RESULTS OF THE 1979 NACUBO COMPARATIVE PERFORMANCE STUDY AND INVESTMENT QUESTIONNAIRE

by

Bruce M. Dresner

Survey Coordinator

Under the Direction of
the NACUBO Investment Committee

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PREFACE

The purpose of the annual NACUBO Comparative Performance Study (CPS) is to aid administrators in evaluating the performance of their investment pools.

The CPS was begun in 1971 as an expansion of a survey conducted in prior years by Dartmouth College. Although the study originally gathered information only on performance, it now includes an investment questionnaire which provides additional pertinent information relating to endowment funds and their management.

The 1979 study contains two parts: Section I--comparative performance information and related investment performance statistics, and Section II--other endowment statistics.

Throughout the study all performance figures are computed using annual data supplied by participating institutions. The theory behind the methodology for the investment pool comparative performance computations is described in Appendix I. Performance calculations are explained in detail in Appendix II. Performance information received from investment services or produced internally may vary from results in this report if such figures are based on other than annual data or computed in a different manner. While it is believed the results can be viewed with considerable validity, a very deviant response or an exceptional outcome should be treated with caution.

The confidential nature of participant responses to investment performance questions has been maintained through use of code numbers. However, select non-performance data has been identified by institution in the belief that this information is most useful when so identified.

Inquiries pertaining to the content of this report or to the methodology for the investment pool comparative performance computations should be addressed to Bruce M. Dresner, NACUBO Survey Coordinator, P.O. Box 31, Hanover, New Hampshire 03755, (603) 646-2445. Additional copies of this report are available through the NACUBO office at $20 per copy for members, $50 for non-members. (Orders must be prepaid.) A Summary Comparative Performance Study is available at $4 per copy.

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RESULTS OF THE NACUBO 1979 COMPARATIVE PERFORMANCE STUDY AND INVESTMENT QUESTIONNAIRE

SECTION I -- INVESTMENT PERFORMANCE

INTRODUCTION

Participants

The 1979 NACUBO Comparative Performance Study (CPS) contains information as of June 30, 1979, on 169 investment pools* of 147 institutions. These institutions have endowment and life income funds of approximately $12.4 billion at market value, or more than two-thirds of the total endowment funds of all colleges and universities in the United States ($16.969 billion), according to the most recent (1978) HEGIS survey.

The institutions in the NACUBO survey are categorized by size as follows:

Table 1

Participating Institutions

(In Millions of Dollars)

Endowment Size	Number Reporting	Life Income Funds	Endowment Funds	Total
$100 million and over	30	$222	$ 8,951	$ 9,173
$50 to $100 million	21	49	1,535	1,584
$10 to $50 million	67	76	1,477	1,553
Under $10 million	29	8	126	134
TOTAL	147	$355	$12,089	$12,444

*The terms "endowment" and "investment pools" are not synonomous. All of an institution's endowment funds may not be contained in its investment pool(s). Investment pools might include--besides true, quasi-, or term endowment--other funds retained in the endowment and similar funds group, such as life income funds, loan funds, and temporarily invested plant funds.

A detailed list of participating institutions ranked by order of endowment size is provided as Table 3, page 3, of this report. As a further helpful reference, an alphabetical listing of institutions participating in the CPS is also provided as Exhibit I, page 51.

Exhibit II, page 53, contains a coded listing as of June 30, 1979, of characteristics of the pools.

Investment Objectives

Of the 169 investment pools, 33% follow a total return investment philosophy, 61% follow a balanced investment philosophy, and 6% follow an income-oriented philosophy. For performance comparison purposes the latter two groups have been combined. Only two pools changed their investment objective during the year. One of these changed from balanced to total return while one changed from balanced to income-oriented.

Size of Investment Pools

For performance comparison purposes the investment pools have been categorized by size as follows:

Table 2

Investment Pools by Size

Size of Pools	Number	Approximate Value of Pools
Over $50 million	43	$ 9,436,000,000
$10 to $50 million	73	1,793,000,000
Under $10 million	53	233,000,000
TOTAL	169	$11,462,000,000

From 1974 to 1979 the size of the investment pools participating in the Comparative Performance Study has increased. In 1974, 47% of the pools in the study were under $10 million, while in 1979 only 32% were in that category. Correspondingly, the $10 million to $50 million group increased from 30% to 43%, and the over $50 million group increased from 23% to 25%.

Pool Characteristics

In terms of characteristics, 127 of the pools were described as official pooled endowment funds. Fourteen were described as combinations of more than one separately invested unitized fund; 13 as pools consisting of only those assets over which management has discretion; 9 as separately invested funds which have been unitized to enable performance to be accurately measured; and 6 as official pooled life income funds.

Pool Composition

Of the 169 pools, 124 contained true and quasi-endowment funds, 19 contained only true endowment funds, and 4 contained only quasi-endowment funds. The 22 remaining pools included not only endowment funds but also investments of other funds groups.

Validity of CPS Data

Because NACUBO is dealing with a wealth of data, errors in compiling results may occur. Numerous checks have been incorporated over the years to keep such inconsistencies to a minimum. However, if the data supplied NACUBO (unit value and income per unit figures) are erroneous, the probability is that only very deviant figures will be spotted. Except for obvious erroneous and deviant figures, all data provided are treated as correct. Although each institution is responsible for the accuracy of data, it is felt that a high degree of reliability can be placed on the raw data supplied. Seventy-five percent of the pools in the NACUBO CPS are independently audited, and over 90 percent are reported either in the institution's annual report or to the board of trustees.

Table 3

ENDOWMENT AND LIFE INCOME FUND ASSETS
RANKED BY ENDOWMENT MARKET VALUE AT JUNE 30, 1979
(000 Omitted)

	Institution	Life Income Funds	Endowment Funds
1	Harvard University	20,791	1,457,690
2	The University of Texas	0	1,054,480
3	Yale University	6,700	577,600
4	Columbia University	5,000	504,000
5	Princeton University	3,578	473,928
6	University of California	0	384,637
7	Massachusetts Institute of Technology	10,344	374,373
8	University of Rochester	4,704	323,970
9	University of Chicago	11,800	311,400
10	Cornell University	19,000	288,000
11	New York University	1,398	272,606 (A)
12	Rice University	12,000	270,573

	Institution	Life Income Funds	Endowment Funds
13	Northwestern University	12,027	256,544 (A)
14	Washington University	4,502	220,923
15	Rockefeller University	132	201,661
16	Dartmouth College	15,881	173,642
17	University of Pennsylvania	7,733	168,025
18	Johns Hopkins University	7,135	164,812
19	California Institute of Technology	27,513	164,051
20	University of Notre Dame	3,637	137,526
21	University of Southern California	15,990	130,053
22	University of Delaware	94	127,859
23	Wellesley College	7,481	126,260
24	Duke University	6,959	122,880
25	Case Western Reserve University	9,866	118,731
26	University of Virginia	124	117,746
27	Carnegie-Mellon University	921	112,787
28	Wesleyan University	529	106,662
29	Brown University	0	106,522
30	University of Michigan	6,486	100,457
31	University of Minnesota	188	95,151
32	Smith College	3,212	91,995
33	University of Pittsburgh	294	91,809
34	University of Cincinnati	4,117	88,016
35	Rensselaer Polytechnic Institute	3,546	87,317
36	Oberlin College	3,819	85,478
37	Williams College	2,172	84,703
38	Southern Methodist University	406	78,628 (M)
39	Amherst College	1,957	77,321
40	Berea College	2,247	76,633
41	Swarthmore College	3.0[illegible]	75,583
42	Vassar College	7,610	74,832
43	University of Richmond	593	71,249
44	Ohio State University	1,178	67,681
45	Brandeis University	3,811	59,632
46	Rochester Institute of Technology	789	57,795
47	Wake Forest University	582	56,983
48	Lehigh University	5,213	55,679
49	State University of New York at Buffalo	83	53,401 (Mar)
50	Lafayette College	1,481	52,859
51	Mount Holyoke College	2,902	52,532
52	Syracuse University	9,316	49,380
53	Carleton College	2,377	48,889
54	Middlebury College	1,670	48,415
55	Bryn Mawr College	1,142	42,999 (M)
56	Georgetown University	1,596	40,347
57	Trinity College	673	38,931
58	Boston University	1,397	37,851
59	Cooper Union for the Advancement of Science and Art	91	37,561
60	University of Miami	3,687	35,845 (M)
61	Hamilton College	2,368	35,744

	Institution	Life Income Funds	Endowment Funds	
62	Academy of the New Church	0	34,870	
63	Tufts University	902	34,267	
64	Bucknell University	694	32,657	
65	University of Wisconsin System	0	32,575	
66	Rutgers, The State University	6	30,626	
67	Hampton Institute	0	30,320	
68	Occidental College	4,953	29,095	
69	Colorado College	271	29,031	
70	Willamette University	1,184	28,533	(M)
71	Baylor College of Medicine	0	26,172	
72	Whitman College	4,900	25,545	
73	Drew University	0	25,538	
74	Teachers College - Columbia University	193	24,158	
75	Colby College	1,524	23,485	
76	University of Missouri	1,734	23,144	
77	University of Denver	697	23,090	
78	Barnard College	511	21,909	
79	University of Vermont	203	20,707	
80	University of Alabama System	0	19,903	
81	College of Wooster	0	19,898	
82	University of Illinois	174	19,849	
83	Sweet Briar College	136	18,520	
84	University of Santa Clara	3,541	17,806	
85	University of Tennessee	10,297	17,373	
86	Simmons College	4	17,108	
87	Hendrix College	1,393	17,100	(J)
88	Albion College	1,173	17,097	
89	Dickinson College	1,553	17,090	
90	Ohio University	0	16,750	
91	Marquette University	61	16,587	
92	Denison University	2,352	16,518	
93	George Washington University	52	16,409	
94	University of Maryland	0	16,311	
95	Ohio Wesleyan University	1,680	15,701	
96	Rhode Island School of Design	35	15,522	
97	University of Nevada System	374	14,634	
98	Pennsylvania State University	1,139	14,301	
99	Michigan State University	366	14,172	
100	Clark University	1,108	13,906	
101	Wheaton College	176	13,689	
102	University of Wisconsin Foundation	2,206	13,673	
103	Cornell College	0	13,169	
104	Franklin and Marshall College	94	12,928	
105	Spelman College	0	12,460	
106	Oregon State Board of Education	0	12,408	
107	Connecticut College	67	12,122	(M)
108	Alma College	128	12,043	
109	Baldwin-Wallace College	573	11,920	
110	Reed College	1,482	11,623	

	Institution	Life Income Funds	Endowment Funds	
111	Indiana University	1,367	11,464	
112	University of Puget Sound	1,677	11,359	(A)
113	Mercer University	332	11,265	
114	Drake University	160	11,256	(M)
115	Allegheny College	0	11,149	
116	University of Arizona	0	10,309	
117	Washburn College	0	10,109	
118	University of Maine	0	10,050	
119	University of Tulsa	116	9,689	
120	Kenyon College	503	8,667	
121	Muhlenberg College	0	8,301	
122	St. Norbert College	0	7,919	
123	University of Dayton	0	7,613	
124	Alfred University	0	6,213	
125	University of Nebraska	0	6,022	
126	University of Evansville	75	5,991	
127	Whittier College	0	5,622	
128	Carroll College	252	5,461	
129	Doane College	536	5,254	
130	University of Arkansas	235	5,117	
131	Virginia Military Institute	0	5,003	
132	American University	0	4,945	
133	Hope College	1,158	4,395	
134	Washington State University	41	4,226	
135	University of Akron	0	3,537	
136	Philadelphia College of Textiles and Science	0	3,440	
137	Oregon State University Foundation	3,775	3,431	
138	Arizona State University	452	2,684	
139	University of Connecticut	0	1,679	
140	University of Tampa	62	1,617	
141	University of Oregon Development Fund	0	1,595	
142	University of Mississippi	0	1,536	
143	Oakland University	0	1,522	
144	University of Akron Development Foundation	302	1,484	
145	Eastern Michigan University	40	1,419	
146	Monmouth College	0	1,360	
147	State University of New York at Binghamton	18	575	

NOTE: (A) Figures are as of August 31, 1979
(J) Figures are as of July 31, 1979
(Mar) Figures are as of March 31, 1979
(M) Figures are as of May 31, 1979

PERFORMANCE

How Did Endowment Funds Do in 1978-79?

The purpose of the NACUBO Comparative Performance Study is to aid administrators in evaluating their investment pool's investment performance. It is believed that measuring comparative performance among pools with similar characteristics, objectives, and risk levels can add an important, useful dimension in reviewing and understanding the investment results achieved in respect to meeting desired goals.

- For the year ending June 30, 1979, the 169 college and university pools participating in this study had an average rate of return of 10.8%. This rate of return exceeds the 10.5% average rate of return earned by a composite of the S&P 500 Index, the Solomon Brothers Bond Index, and the average treasury bill rate using the same asset composition as the average investment pool (52.4% in equities; 30.3% in long term bonds, 14.0% in cash and equivalents, and 3.3% in other assets).

- The study also shows that for the three year period ending June 30, 1979, the average rate of return of the college and university pools of 6.0% outperformed the composite market index of 5.8%. However, for the five-year period ending June 30, 1979, the average return for the investment pools of 8.0% was similar to that earned by the composite index.

- Taking into consideration investment objectives, those pools whose stated objective was "total rate of return" outperformed those whose stated objective was "balanced". The total rate of return pools on average were 66% invested in equities over the past five years while the "balanced" pools were only 53% invested in equities.

- The study reveals that on average the larger pools (over $50 million) outperformed the smaller pools during the past year. However, for the three-year and five-year periods, the pools ranging in size from $10 to $50 million dollars did as well as the larger pools. The pools under $10 million underperformed the other two larger size pools in each of the three time periods reviewed.

- Those investment pools which were managed internally during the year ending June 30, 1979, did on average about the same as those managed externally. However, for each of the two previous years the internally managed pools outperformed those managed externally.

- Investment pools which had higher than average stock and bond turnover rates on average outperformed those pools which had lower turnover ratios.

To provide a more definitive understanding of how an institution might interpret its investment pool performance, the performance for the average investment pool is presented in Table 4 for the one-, three-, five-, and ten-year periods ending June 30, 1979. Exhibit III, page 59, shows the detailed results for each pool participating in the 1979 CPS.

Table 4

Average Performance by Period

	Period Ended June 30, 1979			
	One Year	Three Years	Five Years	Ten Years
All Endowment Pools Measured	10.80%	6.00%	8.02%	4.77%
By Investment Ojective:				
Total Return Pools	11.91	6.35	8.37	4.75
Balanced or Income Pools	10.25	5.82	7.84	4.78
By Size:				
Over $50 million	12.18	6.19	8.12	4.86
$10 to $50 million	10.63	6.04	8.15	4.66
Under $10 million	9.92	5.79	7.71	4.88
Comparative Indices:				
Dow-Jones Industrial Average	9.05	- .62	5.95	4.03
S&P 500 Index	13.47	4.40	8.31	4.49
Salomon Brothers Bond Index	6.75	6.62	8.85	N/A
Kuhn Loeb Bond Index	6.63	7.02	9.67	N/A
Other Benchmarks:				
The Common Fund for Equity Investments	16.92	10.42	11.64	N/A
The Common Fund for Bond Investments	8.72	N/A	N/A	N/A

While one year is too short a time period from which to draw any significant conclusions regarding performance, for the year ending June 30, 1979, 67% of the 169 pools in the CPS outperformed the Dow-Jones Industrial Average. This widely followed benchmark should not be the sole measure used when comparing the performance of the average endowment investment pool. A better measure, but still not completely representative for comparative purposes, is the S&P 500 Index. Eighteen percent of the 169 pools outperformed the S&P 500 in 1978-79, which was a period of increasing stock prices. This is not suprising since most endowment pools maintain a balanced investment mix and are not totally invested in stocks. About 90% of the endowment investment pools outperformed the Salomon Brothers Bond Index. This is not suprising due to the large stock component of these funds. For those few pools totally invested in either common stocks or long-term bonds, a direct comparison to the S&P 500 Index or Salomon Brothers Bond Index, respectively, is more valid.

Table 5

Investment Pools Which Outperformed the Popular Indices

Period Ended June 30, 1979	Dow-Jones Industrial Average	S&P 500 Index	Salomon Brothers Bond Index
One Year			
Number of Pools Measured	169	169	169
Number Outperforming Index	114	31	151
Percent	67%	18%	89%
Three Years			
Number of Pools Measured	166	166	166
Number Outperforming Index	165	127	60
Percent	99%	77%	36%
Five Years			
Number of Pools Measured	154	154	154
Number Outperforming Index	124	67	52
Percent	81%	44%	34%
Ten Years			
Number of Pools Measured	111	111	111
Number Outperforming Index	79	63	N/A
Percent	71%	57%	N/A

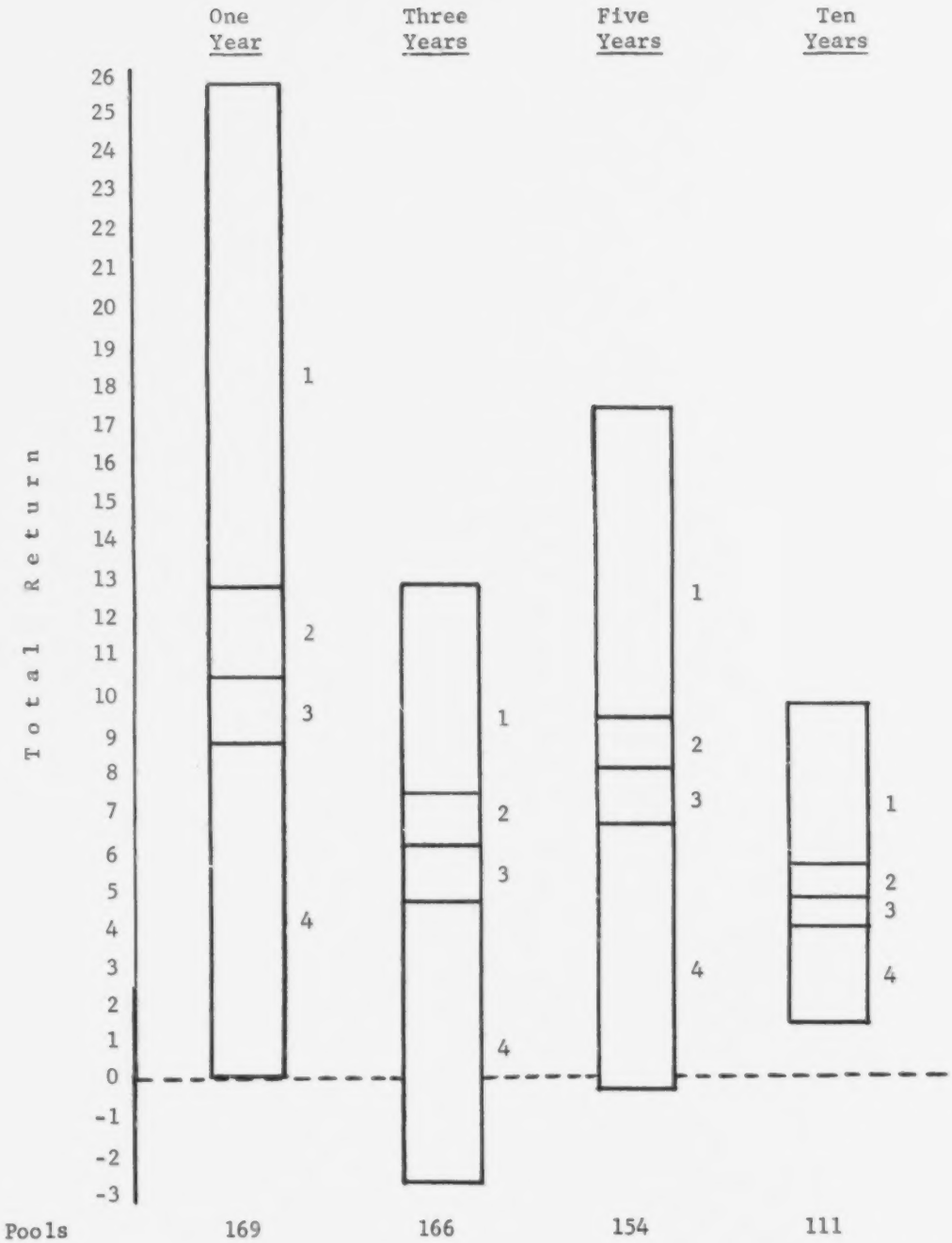
Some may consider the above summary incomplete in that it does not take into account important considerations concerning a specific investment pool, such as the pool's objective (which might be quite different from that of either the stock or bond indices), its risk posture (which in most instances is below that of the stock market but above the bond market), and other policy constraints which have been placed on the pool.

The 1976 CPS marked the first time NACUBO attempted to evaluate investment pool performance on a "risk-adjusted" basis. For fiscal 1978, it was noted that on a risk-adjusted basis significant value was added to endowment performance by investment management. On this same basis, the overall results of all pools for the one-year period ending June 30, 1979, were consistent with what might be expected.

It is also helpful to view performance in the context of the distribution of the investment pool returns. Graph I shows the performance distribution for all investment pools.

GRAPH I

Quartile Performance Distribution
of All Investment Pools



In Exhibit III, the total return for each pool is listed, along with the relative ranking of each pool for the one-year, three-year, five-year, and ten-year periods ending June 30, 1979.

What should be of interest and concern to trustees and those administrators responsible for an investment pool is the return achieved from a blend of market indices that mimics their own pool. In the case of the average pool, this means the return achieved as a result of the investment of its 52% stock component, 30% bond component, 14% cash component, and 3% miscellaneous assets component. On this basis, the one-year return of 10.8% for all investment pools appears favorable compared with the return of 10.49% which might be expected on the asset components of the pool shown in Table 6.

Table 6

Estimated Asset Component Return of All Investment Pools for the One-Year Period Ending June 30, 1979

Asset Component	Index	Fiscal 1978-79 Total Return Percent	Average Investment Pool Asset Component	Expected Total Return
Stocks	S&P 500	13.47%	52.4%	7.06%
Bonds	Salomon Brothers	6.75	30.3	2.05
Cash	Av. Treas. Bill	9.85	14.0	1.38
Miscellaneous	N/A	0	3.3	0
TOTAL			100.0%	10.49%

Table 7 shows an analysis of the components which make up total return.

Table 7

Total Return Performance for the One-Year Period Ending June 30, 1979

	Change In Market Value	Income Earned	Total Return
Average Investment Pool	4.15%	6.65%	10.80%
Dow-Jones Industrial Average	2.81	6.24	9.05
S&P 500 Index	7.73	5.74	13.47
Salomon Brothers Bond Index	-1.76	8.51	6.75
Kuhn Loeb Bond Index	-2.03	8.66	6.63
Average One-Year Treasury Bill Rate	0.00	9.85	9.85

Table 8 indicates the income return to be expected from various types of assets. The 6.98% expected income return using the asset component analysis is close to the actual income return of 6.65% of the average pool shown in Table 8.

Table 8

Income Performance for the One-Year Period Ending June 30, 1979

Asset Component	Index	Fiscal 1978-79 Income Percent Return	Average Investment Pool Asset Component	Expected Income Return
Stocks	S&P 500	5.74%	52.4%	3.01%
Bonds	Salomon Brothers	8.51	30.4	2.59
Cash	Av. Treas. Bill	9.85	14.0	1.38
Miscellaneous	N/A	0	3.3	0
TOTAL			100.1%	6.98%

Performance Summary

The average return of the investment pools is slightly better than what might be expected based on the asset components of the funds (10.80% compared to 10.49%). A comparison of this nature takes into account constraints, such as a debt-to-equity ratio, placed on the manager by the institution's trustees.

Table 9 shows that investment management achieved a significant incremental return of .82% for the three-year period ending June 30, 1979. For the five-year period expected results were achieved.

Table 9

All Pools

Actual Returns Compared to Asset Component Returns for the Five-Year and Three-Year Periods Ending June 20, 1979

	Actual Return	Expected Total Return*	Difference
5 Years	8.02%	8.03%	-.01%
3 Years	6.00	5.18	.82

*Calculated the same as in Table 6 for each year, and results compounded on an average annual basis.

Performance by Investment Objective

As can be seen in Table 4, page 8, for the one-year period ending June 30, 1979, the major broad market index for measuring stock performance (the S&P 500 Index) shows a significantly larger total return than did the major index for measuring bond performace (the Salomon Brothers Bond Index). Inasmuch as the pools with total return as an investment objective were on average 60.8% invested in stocks as compared to 48.6% for the pools with a balanced objective, one would expect the total return pools to outperform the balanced pools. This, in fact, was the case for the year ending June 30, 1979. The total return pools had a total return of 11.91% as compared to 10.25% for the balanced pools--a difference of 1.66%. Applying the asset component analysis (as in Table 6), to each group of pools, one would expect the total return pools to show an 11.07% return and balanced pools a 10.19% return, a difference of .88%. Table 10 shows that the difference was 1.66% and that total return pools, on a risk-adjusted basis, appear to have performed .78% better than balanced pools. Both total return and balanced pools outperformed expected returns by .84% and .06%, respectively.

Table 10

Actual Returns Compared to Expected Total Returns
for the One-Year Period Ending June 30, 1979

	Actual Return	Expected Total Return*	Difference
Total Return Pools	11.91%	11.07%	.84%
Balanced or Income Pools	10.25	10.19	.06
Difference	1.66%	.88%	.78%

*Calculated the same as in Table 6.

Over the shorter (one-, three-, and five-year) terms total return pools nominally outperformed balanced pools. No conclusions can be reached for the ten-year period because a bond index is not available.

Table 11

Total Return Pool and Balanced Pool
Actual Returns Compared to Expected Total Returns
for the Five-Year and Three-Year Periods Ending June 30, 1979

5 Year	Actual Return	Expected Total Return*	Difference
Total Return Pools	8.37%	7.99%	.38%
Balanced or Income Pools	7.84	8.05	-.21
Difference	.53%	-.06%	.59%
3 Year			
Total Return Pools	6.35%	5.02%	1.33%
Balanced or Income Pools	5.82	5.28	.54
Difference	.53%	-.26%	.79%

*Calculated the same as in Table 6 for each year, and results compounded on an average annual basis.

Performance by Size

For the ten-year period ending June 30, 1979, all three size groups performed similarly. For the one-year period ending June 30, 1979, pools over $50 million outperformed the other size pools. This also was true for the three-year period ending June 30, 1979. However, the five-year and ten-year differences in returns were not significant.

Table 12 shows that in terms of expected total returns based on asset mix, the over $50 million group outperformed the smaller funds in every time period.

Table 12

Actual Returns Compared to Expected Total Returns By Endowment Size
For the Five-Year and Three-Year Periods Ending June 30, 1979

5 Years	Actual Return	Expected Total Return	Difference
Over $50 million	8.12%	8.09%	.03%
$10 to $50 million	8.15	7.90	.25
Under $10 million	7.71	8.09	-.38
3 Year			
Over $50 million	6.19%	5.05%	1.14%
$10 million to $50 million	6.04	5.07	.97
Under $10 million	5.79	5.26	.53
1 Year			
Over $50 million	12.18%	10.91%	1.27%
$10 to $50 million	10.63	10.53	.10
Under $10 million	9.92	10.04	-.12

Equity Only and Bond Only Peformance

The 1977 CPS marked the first time NACUBO reported equity only and bond only performance. Separate data were provided on the equity portion of 24 pools and on the bond portion of 16 pools. For the 1978 CPS the number of participating equity and bond pools remained about the same, and for the 1979 study there are 26 equity pools and 14 bond pools. The performance of these pools is shown on page 19. Fourteen equity pools (54%) outperformed the S&P 500 and 21 (81%) outperformed the Dow-Jones Industrial Average. Eight bond pools (57%) outperformed the Salomon Brothers Index. The tables on pages 75 and 76 show the respective three-year and five-year period performance for stock only and bond only pools.

Internal Investment Management Performance

Of the 169 investment pools in the 1979 Comparative Performance Study, 31 are managed internally. The size of these pools is shown in Table 13.

Table 13

Internal Investment Management

Pool Size (Market Value)	Number in Each Group
Greater than $100 million	11
$50 million to $100 million	1
$25 to $50 million	5
$10 to $25 milion	5
$5 to $10 million	3
Under $5 million	6
TOTAL	31

The one-year total return for the 31 pools managed internally was 10.83%, only marginally above the 10.79% for the 138 pools managed externally. In 1978 the return for internally managed pools was 3.66%, compared to 2.28% for the 139 pools managed externally. In the 1977 CPS, the internally managed pools also outperformed the externally managed pools, 6.05% compared to 4.88%.

ASSET COMPOSITION

Summary

Table 14 shows the asset composition of the investment pools as of June 30, 1979. On the average 51.8% of the pooled funds were invested in stocks and 30.1% in bonds. As one would expect, the pools with a total return investment objective were more heavily invested in stocks (58.9%) than were balanced fund pools (48.2%). It can also be seen that the larger sized pools had greater amounts invested in stocks than did the smaller pools.

Table 14

Asset Composition of Investment Pools
June 30, 1979

	All Pools	By Investment Objective		By Size		
		Total Return	Balanced	Over $50 Million	$10 to $50 Million	Under $10 Million
Stocks	51.8%	58.9%	48.2%	60.0%	53.8%	42.3%
Bonds	30.1	22.6	33.7	25.3	26.8	38.4
Cash	14.7	15.5	14.3	11.5	14.7	17.2
Misc.	3.4	3.0	3.8	3.2	4.7	2.1
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Average Asset Composition of Pools by Size and Type From Fiscal 1975 to Fiscal 1979

Pools Over $50 Million	Stock	Bond	Cash	Miscellaneous	Total
1979	59.9%	25.5%	11.4%	3.2%	100.0%
1978	60.2	26.3	10.0	4.5	100.0
1977	61.8	26.3	7.7	4.2	100.0
1976	63.5	24.2	7.3	5.0	100.0
1975	63.0	22.0	10.5	4.5	100.0
5 Year Average	60.6	26.0	9.7	3.7	100.0
3 Year Average	61.7	24.9	9.4	4.0	100.0
Pools $10 to $50 Million					
1979	54.1%	27.2%	14.3%	4.4%	100.0
1978	56.6	28.5	10.4	4.5	100.0
1977	61.3	27.0	7.0	4.7	100.0
1976	61.2	25.4	7.0	6.4	100.0
1975	62.5	19.2	10.4	7.9	100.0
5 Year Average	59.1	25.5	10.6	4.8	100.0
3 Year Average	57.3	27.6	9.8	5.3	100.0
Pools Under $10 Million					
1979	43.8%	38.4%	15.7%	2.1%	100.0%
1978	51.9	35.2	11.1	1.8	100.0
1977	55.1	33.3	9.2	2.4	100.0
1976	59.1	27.3	9.7	3.9	100.0
1975	59.0	24.7	12.0	4.3	100.0
5 Year Average	53.8	31.8	11.5	2.9	100.0
3 Year Average	50.3	35.6	12.0	2.1	100.0
Total Return Pools					
1979	60.0%	22.5%	14.9%	2.6%	100.0%
1978	64.3	23.0	9.9	2.8	100.0
1977	67.5	22,0	7.2	3.3	100.0
1976	69.1	16.9	9.6	4.4	100.0
1975	68.1	14.2	12.5	5.2	100.0
5 Year Average	65.8	19.7	10.8	3.7	100.0
3 Year Average	63.9	22.5	10.7	2.9	100.0
Balanced or Income Pools					
1979	48.6%	34.1%	13.6%	3.7%	100.0%
1978	51.6	34.0	10.7	3.7	100.0
1977	54.8	32.09	8.3	4.0	100.0
1976	56.3	30.7	7.5	5.5	100.0
1975	56.8	27.1	10.3	5.8	100.0
5 Year Average	53.6	31.8	10.1	4.5	100.0
3 Year Average	51.7	33.7	10.9	3.7	100.0

Shifts in Investments

The net change in asset composition over the years results from a combination of two factors. The first is a change in stock and bond prices; the second is a shift in investments. Tables 16 through 18 show the estimated shift in investments made by management decision. To the June 30, 1978, asset composition figures is applied the change in market price of each type of investment to arrive at projected asset composition figures for June 30, 1979. The actual composition amounts are then subtracted from the projected amount to arrive at the net change caused by shifts in investments. The increase of 7.73% in the market price of the S&P 500 Index is used to arrive at the projected stock figure, while the decrease of 1.76% in market price of the Salomon Brothers Bond Index is used to arrive at the projected bond figure. The projections assume no market price change for cash or miscellaneous assets. While these computations do not provide a precise measurement of shifts in investments, they do provide estimates which can be studied.

Tables 16 through 18 show changes in asset composition of pools.

Table 16

Change in Asset Composition Caused by Shifts in Investments -- All Pools

	June 30, 1977	June 30, 1978		
	Actual	Predicted	Actual	Difference
Stocks	52.9%	55.1%	51.8%	-3.3%
Bonds	30.4	28.8	30.1	+1.3
Cash	13.3	12.8	14.7	+1.9
Miscellaneous	3.4	3.3	3.4	+ .1
TOTAL	100.0%	100.0%	100.0%	

Table 17

Change in Asset Composition Caused by Shifts in Investments -- All Pools 1974-1979

	Percent Change -- Year Ended June 30						
	1974	1975	1976	1977	1978	1979	Total
Stocks	-4.0%	-1.2%	-2.2%	-1.1%	-4.8%	-3.3%	-16.6%
Bonds	1.3	3.9	4.2	.0	0.6	1.3	11.3
Cash	3.0	-2.9	-1.7	1.0	-4.2	1.9	5.5
Miscellaneous	-0.3	0.2	-0.3	0.1	0	0.1	- 0.2

Table 18

Change in Asset Composition Caused by Shifts In Investments - by Investment Objective

Percent Change -- Year Ended June 30

Total Return	1974	1975	1976	1977	1978	1979	Total
Stock	-5.1%	-0.5%	-3.7%	-0.2%	-6.2%	-4.2%	-19.9%
Bond	0.1	2.6	5.8	0.2	1.7	1.5	11.9
Cash	5.0	-2.7	-1.8	0.5	4.6	1.8	7.8
Miscellaneous	0	0.6	-0.7	-0.5	-0.1	0.9	0.2
Balanced							
Stock	-3.5	-1.9	-1.4	-1.4	-4.1	-2.8	-15.1
Bond	2.0	4.7	3.3	- .2	0	0.9	10.7
Cash	1.9	-2.8	-1.4	1.3	4.1	2.0	4.7
Miscellaneous	-0.4	0	-0.1	0.3	0	-0.1	- 0.3
Over $50 Million							
Stock	-4.5	-1.9	-1.3	-0.5	-1.5	-1.8	-11.5
Bond	-0.1	5.1	1.3	-0.9	-1.1	1.2	5.5
Cash	4.7	-3.4	-1.4	1.7	2.7	0.7	5.0
Miscellaneous	-0.1	0.2	1.4	-0.3	-0.1	-0.1	1.0
$10 to $50 Million							
Stock	-3.5	-2.9	-1.6	-0.9	-6.3	-2.6	-17.8
Bond	0.5	4.3	4.3	-0.9	1.7	0.7	10.6
Cash	3.6	-2.1	-1.4	1.5	4.8	1.3	7.7
Miscellaneous	-0.6	0.7	-1.3	0.3	-0.2	0.6	- 0.5
Under $10 Million							
Stock	-4.2	0.2	-3.4	-1.7	-5.1	-5.2	-19.4
Bond	2.1	2.9	5.7	1.6	0.4	1.7	14.4
Cash	2.2	-3.0	-1.8	0.2	4.7	3.5	5.8
Miscellaneous	-1.1	-0.1	-0.5	-0.1	0	0	- 0.8

Distribution of Asset Composition

Table 19 shows the distribution of asset composition by number of pools.

Table 19

Distribution of Asset Composition as of June 30, 1979

	All Pools	By Objective: Total Return	By Objective: Income or Balanced	By Size: Over $50 Million	By Size: $10 to $50 Million	By Size: Under $10 Million
				(Number of Pools)		
Percent Invested in Stocks						
90-100%	1	0	1	0	0	1
80-90%	4	3	1	2	2	0
70-80%	19	11	8	6	10	3
60-70%	30	16	14	12	14	4
50-60%	44	11	33	16	18	10
40-50%	30	7	23	4	16	10
30-40%	22	4	18	2	8	12
0-30%	19	4	15	1	5	13
TOTAL	169	56	113	43	73	53
Percent Invested in Bonds						
90-100%	3	0	3	0	1	2
80-90%	0	0	0	0	0	0
70-80%	0	0	0	0	0	0
60-70%	3	1	2	0	0	3
50-60%	13	0	13	2	3	8
40-50%	21	7	14	3	10	8
30-40%	29	2	27	7	9	13
20-30%	60	23	37	17	29	14
10-20%	23	14	19	9	12	2
0-10%	17	9	8	5	9	3
TOTAL	169	56	113	43	73	53

Asset Diversification

In general, investment pools tended to hold more stocks than bonds. As shown in Table 20 the smallest size group had the smallest ratio of the number of stocks to bonds. Also, total return pools tended to have stock positions (53 holdings) about two and one-half times their bond positions (19 holdings).

The total distribution of bond and stock positions for all pools and for the different size categories is portrayed in Graph II on pages 23 and 24.

Table 20

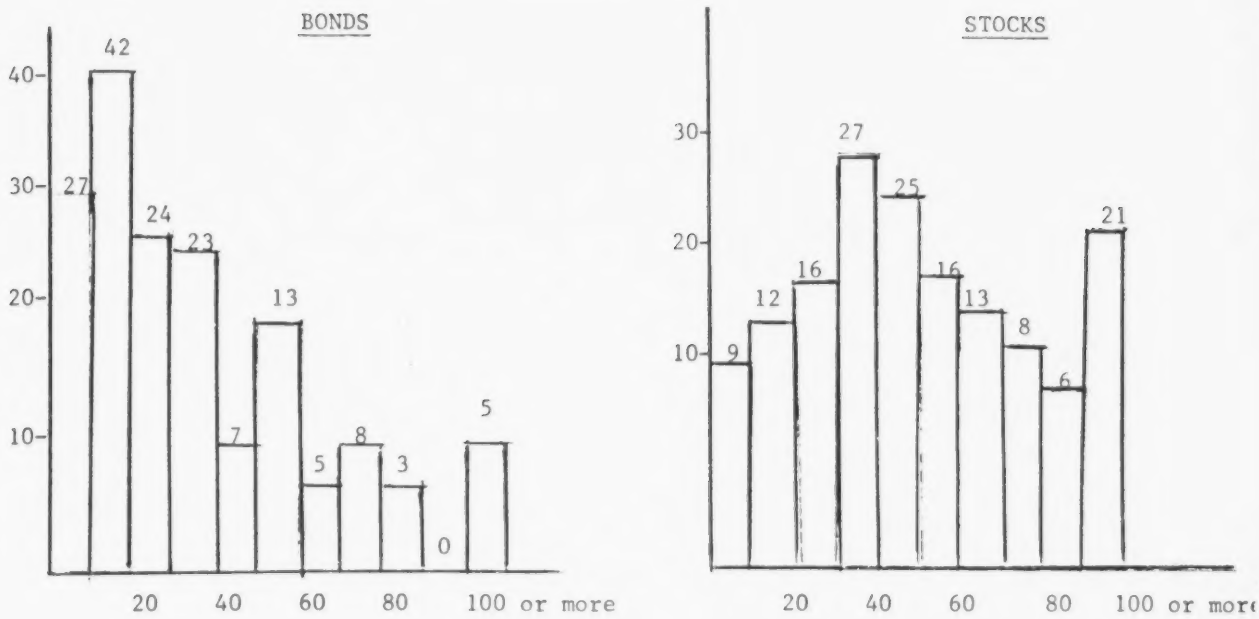
Asset Diversification for Bonds and Stocks as of June 30, 1979

	Median Number of Bonds Held	Median Number of Stocks Held
All Pools	23	46
By Investment Objective:		
Total Return	19	53
Balanced	28	43
By Size:		
Over $50 million	42	99
$10 to 50 million	27	53
Under $10 million	16	30

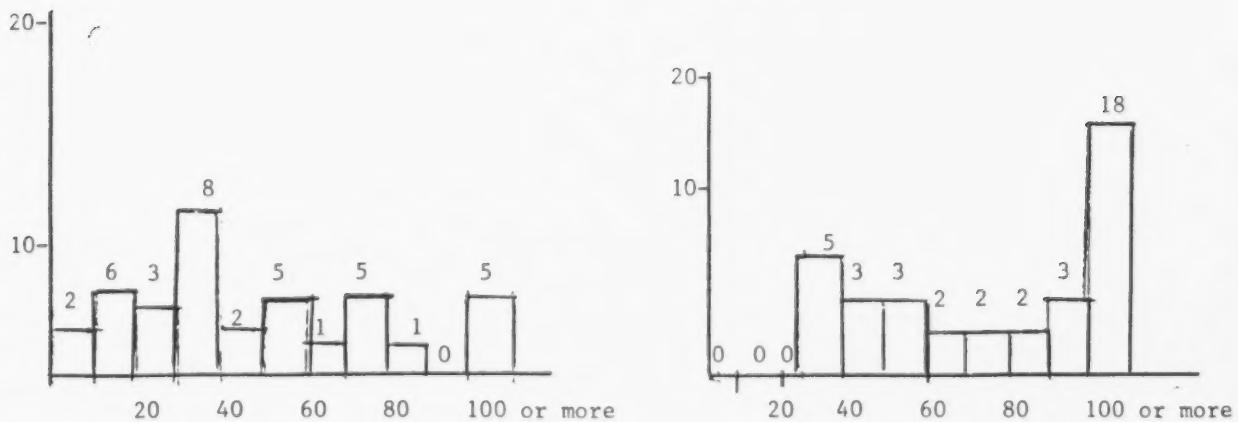
GRAPH II

Asset Diversification
(1978-79)

ALL POOLS



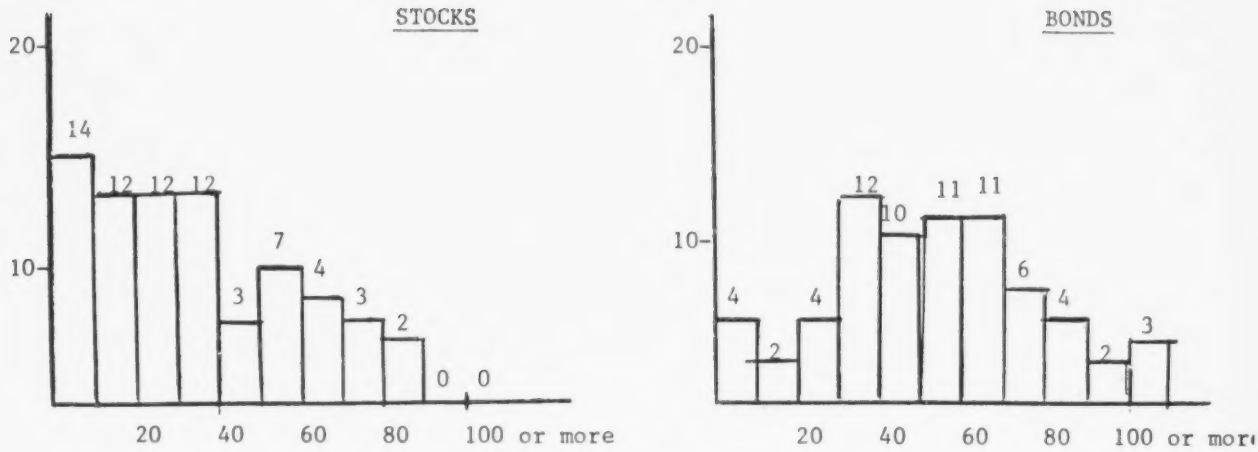
OVER $50 MILLION



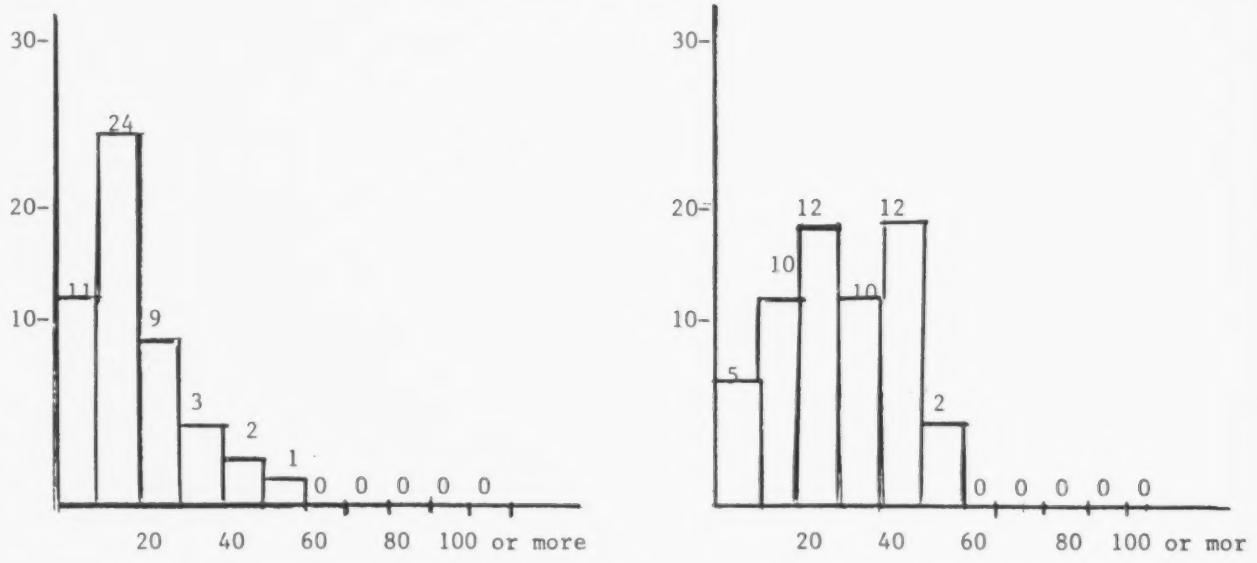
GRAPH II
(Cont.)

Asset Diversification

$10-$50 MILLION



UNDER $10 MILLION



Equity Price Earnings Ratio - "P/E"

Institutions were asked on an optional basis to provide the price earnings ratio (P/E) for the equity portion of their investment pools as of June 30, 1979. The average P/E for 32 pools was 9.3 compared to 6.8 for the Dow-Jones and 7.5 for the S&P 500.

Non-Controllable Assets

Non-controllable assets are those which although included in investment pools are not truly marketable or not included in the pool solely on their investment merit, i.e., investment in a dormitory, investment letter stock, donor restricted stock, etc.

Of the 169 pools, 144 (85%) had non-controllable assets of 5% or less, 20 had non-controllable assets of between 5% and 15%, 3 between 15% and 25%, and two had non-controllable asets of greater than 25%. Non-controllable assets for all pools represented 2% of the total assets of the pools as of June 30, 1979.

RISK MEASUREMENT AND RETURN

Description

There presently remains considerable controversy as to whether superior investment managers do exist and hence can produce an incremental return relative to the amount of risk taken, or whether the only way above average long-run return can be achieved is by assuming greater risks. Risk is defined as a greater variability in return. A particular risk measure now widely used is an index of relative volatility, which is also known by the Greek letter "beta." The beta calculation or risk is essentially a comparison between the movements of returns from any individual stock or portfolio and the movements of returns from the market as a whole.*

The 1975 CPS report marked the first year that the calculation of volatility as a measurement of risk was introduced into the Comparative Performance Study. The incorporation of risk when reviewing investment performance has been continued in the succeeding reports. In calculating such statistical measures for an investment pool, reliability is higher when information has been gathered over a long period of time. Although more accuracy could be achieved by using quarterly data, it is believed that data used in this study provide reasonably reliable results if there is adequate diversification of investment pool assets to the stock market, and the relationship of asset component return is similar to what might be expected. That is, stocks are more risky than bonds, and bonds are more risky than treasury bills. Correspondingly, in up markets stock should do better and treasury bills worse, and in down markets just the opposite should occur.

*Managing Risk In An Uncertain Era, Malkiel & Firstenberg, Princeton University Press, 1976.

In a regression analysis an investment pool's beta measure is the percentage fluctuation that can be expected and therefore predicted based on the related performance of the stock market. Generally, the S&P 500 Index is used as the market base. A beta of 1 means that a pool should move in unison with the market. If the market goes up 10%, the pools should go up 10%. A beta of more than 1, say 1.10, means the pool is 10% more volatile than the market; a pool with a beta of less than 1, say .90, is 10% less volatile. When the market goes up a more volatile pool should perform better than the market; it should perform worse when the market goes down. On the other hand, a pool that is less volatile (lower beta) should not perform as well in an up market but not lose as much in a down market. Any change in value will vary from that predicted by the beta measure if, and to the extent that, a pool is not thoroughly diversified and therefore exhibits distinct, unique characteristics not correlated to the market in general.

Observations

Table 22 shows beta coefficients calculated for the investment pools in the study. College and university endowment funds appear to be invested for less volatility and risk than the market as a whole. One would expect their performance to be below that of the stock market as a whole in a period of a rising market as was the case in fiscal 1975, 1976, and 1979, and above the stock market in a period of declining market as was the case in fiscal 1977 and 1978.

Table 21

Comparative Performance Study
Historic Beta of All Investment Pools

10 Years Ending June 30	10 Year Beta
1975	.69
1976	.72
1977	.71
1978	.73
1979	.72

Table 22

Beta Coefficients

	Ten Years Ending June 30, 1979
By Investment Objective:	
Total Return Pools	.79
Balanced Pools	.69
By Size:	
Over $50 million	.75
$10 to $50 million	.75
Under $10 million	.63
Comparative Indices:	
Dow-Jones Industrial Average	.83
Salomon Brothers Bond Index	N/A
S&P 500	1.00

STOCK AND BOND TURNOVER

Method of Calculation

Turnover, as reported in this study, is determined by dividing the lesser of stock purchases or sale activity by the average of the beginning and ending year asset value of stocks. For example, a portfolio with $80 million in stocks at June 30, 1978, and $100 million at June 30, 1979, that purchased during the year $25 million in stocks and sold $18 million, would have had a turnover of 20% -- $18 million in sales divided by $90 million. This same methodology is used for bond turnover.

1979 Stock Turnover

For all institutions, 1979 stock turnover of 18.0% was the highest since NACUBO began gathering this data in 1974-75, as shown in Table 23. In 1979, and in four of the last five years, turnover for total return pools has been greater than for balanced pools. Based on size, the smallest group has had the least equity turnover in 1979 and also in four of the last five years.

Bond Turnover

This is only the second year NACUBO has been gathering data on bond turnover. For both 1978 and 1979 turnover for balanced pools has been about twice the turnover for total return pools. The smaller the size group of pools the lower the turnover. Pools over $50 million in size had more than three times the turnover of pools between $10 and $50 million in size in 1979, and over twice the turnover in 1978.

Table 23

Stock Turnover

	Median Response				1978-79	
	1974-1975	1975-1976	1976-1977	1977-1978	Median Response	Number Responding
All Pools	17.0%	16.1%	15.1%	14.3%	18.0%	142
By Investment Objective:						
Total Return Pools	17.4	16.1	15.1	17.0	24.3	47
Balanced Pools	16.5	15.8	16.1	13.5	16.4	95
By Size:						
Over $50 million	19.7	15.4	15.0	15.3	20.5	32
$10 to $50 million	17.0	15.5	20.8	17.0	19.0	63
Under $10 million	14.4	18.0	11.4	12.0	15.8	47

Bond Turnover

All Pools	13.7	15.5	137
By Investment Objective:			
Total Return Pools	9.6	18.5	46
Balanced Pools	20.0	33.8	91
By Size:			
Over $50 million	28.4	48.8	31
$10 to $50 million	12.4	13.0	61
Under $10 million	7.7	10.9	45

Stock Turnover

Stock and Bond Turnover and Performance Implications

For 1979, the 25 pools with the highest turnover ratios outperformed the 25 pools with the lowest turnover ratios by approximately 1%. In general this is similar to the findings of prior years' studies.

Table 24

Pools with the Highest and Lowest Equity Turnover Percentage*
for the One-Year Period Ending June 30, 1979
Ranked According to Average Total Return

Highest Turnover				Lowest Turnover			
Rank	Code Name	1979 Turnover Percent	1979 Average Total Return	Rank	Code Name	1979 Turnover Percent	1979 Average Total Return
1	C54	43.7%	24.54%	1	E12	2.8%	18.5%
2	COM-FEDQ		16.92	2	C77	3.2	17.08
3	C48	253.8	14.84	3	COM-FDEQ		16.92
4	C66	71.0	13.68	4	SP-IND		13.64
5	SP-IND		13.64	5	SP500		13.47
6	E64	124.0	13.58	6	C4	5.0	12.78
7	E36	73.0	13.53	7	E44	6.0	12.29
8	SP500		13.47	8	E57	7.7	11.82
9	F63	62.1	13	9	E18	6.5	11.44
10	E4	43.0	12.76	10	C50	2.6	10.73
11	C82	51.0	12.65	11	E96	6.0	10.68
12	E77	60.1	12.54	12	C31	4.2	10.51
13	E52	51.0	11.43	13	C19	2.9	10.47
14	C34	100.0	11.09	14	C55	2.3	10.4
15	E20	56.0	11.02	15	C93	6.9	10.4
16	E8	43.0	10.79	16	E6	5.0	9.97
17	C2	82.0	10.66	17	E14	7.0	9.72
18	E10	43.0	10.49	18	C61	1.3	9.4
19	E27	68.0	10.34	19	C86	3.5	9.31
20	E95	48.8	9.98	20	D-Jones		9.05
21	E24	62.1	9.8	21	COM-FDBD		8.72
22	C43	81.5	9.68	22	C3	4.2	8.61
23	C39	100.5	9.64	23	E13	5.0	8.6
24	D-Jones		9.05	24	C1	4.3	8.24
25	E89	65.5	8.85	25	E81	1.7	8.12
26	COM-FDBD		8.72	26	C16	1.6	8.08
27	C92	101.7	7.42	27	C84	1.0	8.06
28	C79	50.0	7.41	28	E22	1.1	7.44
29	Salomon		6.75	29	C85	6.0	6.82
30	Leh-Kuhn		6.63	30	Salomon		6.75
31	C21	60.1	6.23	31	Leh-Kuhn		6.63
32	C76	44.0	4.69	32	E32	5.4	4.52
Arithmetic Average of 25 Pools		73.6%	11.23%	Arithmetic Average of 25 Pools		4.1%	10.16%

*NOTE: All pools included in this analysis had an equity component of at least 35%.

Table 25

Pools with the Highest and Lowest Bond Turnover Percentage* for the One-Year Period Ending June 30, 1979, Ranked According to Average Total Return

Highest Turnover				Lowest Turnover			
Rank	Code Name	1979 Turnover Percent	1979 Average Total Return	Rank	Code Name	1979 Turnover Percent	1979 Average Total Return
1	C25	87.6%	17.42%	1	COM-FDEQ		16.92%
2	COM-FDEQ		16.92	2	SP-IND		13.64
3	E33	124.9	15.4	3	SP500		13.47
4	SP-IND		13.64	4	C13	0	12.06
5	E64	83.0	13.58	5	E16	0	11.35
6	SP500		13.47	6	C67	0	10.66
7	E4	149.0	12.76	7	C51	0	10.61
8	E91	93.0	12.25	8	C52	0	10.54
9	E66	74.0	12.02	9	C20	0	10.52
10	E57	295.0	11.82	10	C41	0	10.05
11	E38	164.0	11.72	11	E6	2.8	9.97
12	C34	100.0	11.09	12	E67	3.8	9.59
13	E8	92.0	10.79	13	D-Jones		9.05
14	E96	173.0	10.68	14	C33	4.5	8.8
15	E62	86.5	10.57	15	COM-FDBD		8.72
16	C26	398.2	10.52	16	E13	0	8.6
17	E10	149.0	10.49	17	C1	3.9	8.24
18	E27	136.0	10.34	18	C16	3.1	8.08
19	C39	130.0	9.64	19	C84	0	8.06
20	E73	110.6	9.2	20	C62	2.9	7.85
21	E17	102.0	9.1	21	C23	3.1	7.84
22	D-Jones		9.05	22	E50	0	7.72
23	E92	84.0	8.91	23	E58	4.4	7.67
24	C17	152.6	8.81	24	E22	1.6	7.44
25	COM-FDBD		8.72	25	C47	.4	7.07
26	E81	76.9	8.12	26	C85	0	6.82
27	E47	72.0	8.11	27	Salomon		6.75
28	C92	80.3	7.42	28	Leh-Kuhn		6.63
29	Salomon		6.75	29	C38	0	6.15
30	Leh-Kuhn		6.63	30	E87	.9	4.93
31	E84	71.6	5.88	31	E88	.9	4.57
32	C46	71.6	5.12	32	C94	0	0.12
Arithmetic Average of 25 Pools		126.3%	10.47%	Arithmetic Average of 25 Pools		1.3%	8.21%

*NOTE: All pools included in this analysis had a bond component of at least 20%.

INVESTMENT ADVISORY FEES AND DISCRETION

Investment Fees

The median fee for 131 responding institutions was .25% and the average fee was .27%. For those managers who do not have discretion, economies of scale do seem to come into play as there is differentiation among the largest, middle-sized, and smallest pools. This relationship did not hold true for institutions which did give their managers discretion, as only larger pools seemed to achieve economies.

Investment Discretion

Of 131 institutions, 23% indicated that they do not give their advisor discretion, and 77% indicated that they do give discretion. The largest institutions are more likely to give their managers discretion. The results in Table 26 are consistent with those of prior studies in that those institutions which do not give discretion pay less than those which do.

Table 26

Advisory Fees Paid in 1978-79 as a Percent of Average Market Value, in Terms of Investment Discretion

	Number of Institutions	Arithmetic Average	Median Response
Give Discretion			
Over $50 million	25	.22%	.21%
$10 to $50 million	40	.29	.29
Under $10 million	36	.32	.30
Subtotal	101	.28%	.26%
Do Not Give Discretion			
Over $50 million	3	.18%	.12%
$10 to $50 million	20	.20	.21
Under $10 million	7	.25	.26
Subtotal	30	.22%	.21%
TOTAL	131	.27%	.25%

SECTION II -- ENDOWMENT CHARACTERISTICS

Introduction

As part of the ongoing Comparative Performance Study, NACUBO has attempted to build a data base of information concerning endowment funds. In recent years, this has been broadened to include endowment characteristics. This information has both a direct and indirect involvement with endowment investing. Section II of this report includes information concerning endowment gift giving, endowment wealth, endowment principal and income, custodial fees, option writing and the like. In 1977 new areas included information on life income funds, non-security assets, and assets over which institutions have no control, i.e., investor letter stock or donor-restricted assets. In 1978, information on the application of the total return concept for budgeting, real estate investing, real estate gifts, and the use of the Depository Trust Company were included. This year real estate investing and real estate gifts have been eliminated, life income information has been expanded, and other areas of interest continued.

General Information and Endowment Distribution

Of the 147 institutions responding, 128 (87%) have fiscal years ending June 30; the next most frequent responses were the last days of May and August with 7 and 6, respectively. Only 3 used December 31, and the remaining 4 pools had varying dates throughout the year.

The distribution and size of the 147 institutions reporting endowment size, exclusive of life income and similar funds, as of June 30, 1979, are categorized by independent and public-supported institutions in Table 27.

Table 27

Endowment Size Distribution of 147 Independent and Public Institutions

	Independent	Public	Total	Percent of 147 Answering
Greater than $100 million	26	4	30	20%
$50 to $100 million	16	5	21	14
$25 to $50 million	20	2	22	15
$10 to $25 million	30	15	45	31
$5 to $10 million	10	3	13	9
Under $5 million	6	10	16	11
TOTAL	108	39	147	100%

It is interesting to note that the distribution by asset size of those reporting in the 1979 survey is markedly different from that of the 1974 survey as shown in Table 28. In the 1975 through 1979 surveys, the percentage of small institutions participating (those with market values under $10 million in size at the end of each fiscal year) declined from the prior year. At the same time the number of institutions with larger endowments (those over $50 million) has increased.

Table 28

Endowment Size Percent Distribution of the 1975 through 1979 Surveys

	1974	1975	1976	1977	1978	1979
Greater than $50 million	22%	24%	29%	32%	33%	34%
$10 to $50 million	35	36	42	41	42	46
Under $10 million	43	40	29	27	25	20
TOTAL	100%	100%	100%	100%	100%	100%
Number Participating	145	147	138	148	144	147

Life Income Funds

Life income funds are those the income of which does not flow through to the institution during the lifetime of the donor or beneficiary, yet the principal of which has been designated to the institution as a remainder.

In Table 3, page 3 of Section I of this report, the dollar amount of life income funds for each institution reporting such information is indicated. The total market value at June 30, 1979, of life income funds of the 113 responding that they had such funds was $355 million. Last year's survey indicated that there seemed to be major practical differences among institutions in regard to both life income fund investing and financial statement reporting. Of those institutions indicating that they had such funds, about one-third combined these funds with their endowment for investment purposes and about one-half for financial reporting purposes.

To the extent that institutions for financial report purposes include life income funds with endowment funds, wealth probably is being overstated since such assets are not currently earning revenue for the support of the institution.

Non-Security Assets

Ninety-nine institutions reported the portion of their total endowment invested in non-security assets. The composition of such assets varies among institutions, but typically this segment of the endowment contains employee mortages which may be at "incentive rates" related to employment, and plant and facilities assets. The earnings from such assets are not typical, however, since they usually are set by the administration or the institution's trustees. In such instances, the return would constitute interest in the case of employee mortgages, room rent in the case of dormitories, transfer charges in the case of heating facilities, etc. The point to be made in regard to financial implications is that an institution with a heavy endowment commitment in non-security assets probably is less flexible in terms of its investment alternatives. Where non-security assets represent a large portion of the total endowment, "true wealth" may be overstated. In terms of non-security assets, there does not seem to be much difference among the larger endowment size groupings or between independent and public institutions. Smaller institutions tend to have about twice the endowment non-security asset representation as larger institutions. Table 29 shows the range of responses as of June 30, 1979.

Table 29

Non-Security Assets as a Percentage of Total Endowment*

Non-Security Assets Percentage of Endowment	Independent Institutions	Public Institutions	All Institutions
Less than 1%	20	5	25
1 to 2%	5	2	7
2 to 2.5%	2	1	3
2.5 to 3%	4	0	4
3 to 3.5%	7	1	8
3.5 to 5%	6	1	7
5 to 6.5%	5	3	8
6.5 to 8%	6	1	7
8 to 10%	6	0	6
10 to 12.5%	6	1	7
12.5 to 15%	4	0	4
15 to 20%	3	1	4
20 to 25%	3	0	3
Greater than 25%	4	2	6
TOTAL	81	18	99
Median Response	4.3%	4.9%	4.3%

*NOTE: Including life income funds.

Non-Controllable Assets

Fifty-eight institutions indicated they had non-controllable assets as shown in Table 29. Of those reporting non-controllable assets, institutions under $10 million had the greatest amount of non-controllable assets.

Table 30

Non-Controllable Assets as a Percent of Total Endowment*

Percentage of Endowments	Independent Institutions	Public Institutions	All Institutions
Less than 1%	16	2	18
1 to 2%	7	2	9
2 to 2.5%	3	0	3
2.5 to 3%	1	0	1
3 to 3.5	4	0	4
3.5 to 5%	4	0	4
5 to 6.5	7	0	7
6.5 to 8%	3	2	5
8 to 10%	0	0	0
10 to 12.5%	1	0	1
12.5 to 15%	1	0	1
15 to 20%	2	0	2
20 to 25%	1	0	1
Greater than 25%	1	1	2
TOTAL	51	7	58
Median Response	2.3%	1.2%	2.3%

*NOTE: Including life income funds.

Endowment Growth and Real Growth

The increased size of endowment funds in 1979 appears to be the result of new gifts added to endowment, and of appreciation in equity securities offsetting depreciation in the bond security markets. An approximation of endowment growth can be made for the six-year period ending June 30, 1979. As a group, endowments funds at June 30, 1979, have increased about 12% since June 30, 1973, the first year NACUBO began to gather these data. However, in real terms, taking inflation into account, endowment funds have actually declined in purchasing power about 3% for the one-year period ending June 30, 1979, and about 30% since June 30, 1973. To help put this into perspective, Table 31 compares the S&P 500 Index, the Dow-Jones Industrial Index, the Salomon Brothers High-Grade Bond Index, and endowment funds both before and after inflation. The endowment fund figures are adjusted by both the CPI and the Higher Education Price Index (HEPI).

The table shows that the rebound from the low 1974 bond and equity markets leaves educational institutions far from whole, that is, $100 of endowment at June 30, 1973, would have the purchasing power of only about $70 at June 30, 1979. Stated another way, endowment would have to rise an additional 45% to maintain 1973 purchasing power in 1979. This devastating loss in purchasing power is being felt throughout the college and university world and helps explain some of the more recent fiscal problems being experienced by many endowed institutions, especially those that rely more heavily on their endowment to meet current operating expenses. It is not surprising that many institutions have recently undertaken major fund drives to restore the purchasing power of their endowments.

Table 31

Five-Year Appreciation Comparison of Indices
Endowment Before and After Inflation

	Fiscal Year Ending June 30							
	1973	1974	1975	1976	1977	1978	1979	6 Year Percent Change
Dow-Jones	891.71	802.41	878.99	1002.78	916.30	818.95	841.98	-5.58%
S&P 500	104.26	86.00	95.19	104.28	100.48	95.53	102.91	-1.29
Salomon Brothers Endowment Funds	100.00	83.30	91.05	98.52	102.36	103.79	112.09	12.09
Real Endowment Based on CPI*	100	76.49	75.19	75.96	74.60	70.82	68.94	-31.06
Real Endowment Based on HEPI*	100.00	77.78	78.28	79.46	77.52	73.67	73.80	-26.20

*CPI (Consumer Price Index) and HEPI (Higher Education Price Index) figures obtained from The National Institute of Education, Higher Education Prices and Price Indexes 1979 Supplement, by D. Kent Halstead, and Chronicle of Higher Education, September 24, 1979.

Fiscal 1979 Endowment

The 147 institutions reporting in the 1979 survey indicated that their total market value as of June 30, 1979, increased approximately 8.0% in asset value to $12.4 billion for the June 30, 1978-79, fiscal year. This figure included some $355 million in life income fund assets. The increase in asset value or wealth as represented by the median institution was fairly similar for independent and public institutions. Those institutions classified as under $10 - $50 million in size having the greatest increase, followed by the $50 million group and then the under $10 million group. The "wealth" percentage is not a measure of investment performance as it does not take into account withdrawals from, or additions to, endowment.

Gifts to Endowment

Because each college and university and its alumni are unique, it is often difficult to draw analogies relating to gift giving among institutions. It is hoped that from data gathered over longer periods of time, many useful trends will appear. Table 32 shows that the smaller the institution, the greater endowment gifts are as a percent of market value. Gifts as a percent of market value for the five years 1975 through 1979 continue to be a rather tight range of less than 1% from 2.6% in 1974-75 to 3.4% in 1977-78.

Table 32

Fiscal 1976 through 1979 Gifts to Endowment
As a Percent of Average Market Value

	1974-75 Median Endowment	1975-76 Median Endowment	1976-77 Median Endowment	1977-78 Median Endowment	1978-79 Median Endowment
Over $50 million	2.0%	3.1%	2.3%	2.4%	2.7%
$10 to $50 million	2.3	2.2	3.1	3.4	2.9
Under $10 million	3.1	5.1	6.7	4.5	6.3
Independent	2.3	2.4	3.0	2.7	2.7
Public	3.6	4.7	3.7	4.1	4.6
All Institutions	2.6%	2.7%	3.1%	3.4%	3.3%

Table 33 shows 1978-79 quasi-endowment gifts as a percentage of total endowment gifts. Quasi-endowment gifts are deemed more valuable than restricted gifts as these are gifts over which the institution has the greater discretion. The table also shows that independent institutions have more quasi-endowment as a percentage of total endowment than do public institutions, and that the largest institutions have more quasi-endowment than the middle-sized institutions which have more quasi-endowment than the smallest sized grouping.

Table 33

Quasi-Endowment

	Total Quasi-Endowment as a Percentage of Total Endowment		1978-79 Quasi-Endowment Gifts as a Percentage of Total 1978-79 Gifts	
	Mean Endowment	Median Endowment	Mean Endowment	Median Endowment
Over $50 million	35.5%	30.0%	30.8%	32.8%
$10 to $50 million	28.3	27.0	27.3	19.9
Under $10 million	22.0	14.0	26.0	6.0
Independent	31.4	27.0	25.6	16.8
Public	23.8	15.0	36.6	39.6
All Institutions	29.3%	26.0%	28.7%	19.9%

Current Fund Revenue and Endowment Income

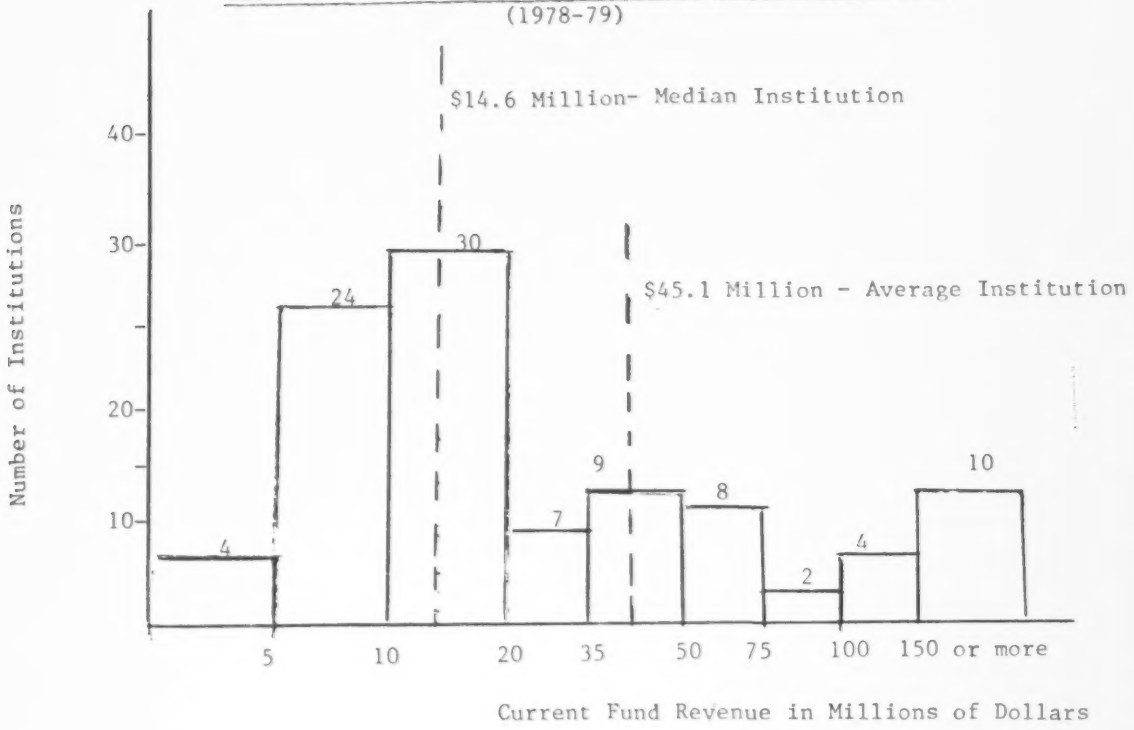
Current fund revenue and endowment income for both independent and public institutions are portrayed in Graphs III and IV. It can be seen from Graph III that four independent and two publicly controlled institutions had current fund revenue of less that $5 million, one public and twenty-two independent institutions had current fund revenue of $5 to $10 million, etc. Graph IV shows, for example, that 6 independent institutions, or 7% (6/92) of all independent institutions responding, and 19 public institutions, or 61% (19/31) of all public institutions responding, received income from endowment constituting less than 1% of current fund revenue, etc. The average amount of current fund revenue for independent and public institutions is $45.1 million and $241 million, respectively. The median figures are $14.6 million and $212 million. The average percent of endowment income to current fund revenue for independent and public institutions is 12.2% and 2.6%. The median figures are 8.6% and .5%. This graph depicts the greater importance placed on the endowment of independent institutions in maintaining quality education relative to that of public institutions.

Budget Guideline

Graph V illustrates the amount of endowment spent for current operations as a percentage of the average market value. This percentage is the amount utilized from the endowment including any appropriation of endowment principal during the fiscal year to help meet the current budget. In a sense it is a budget "guideline" showing what institutions during fiscal 1978-79 contributed from their total endowment to support their immediate needs. The budget guideline for the average and median is 6.0%.

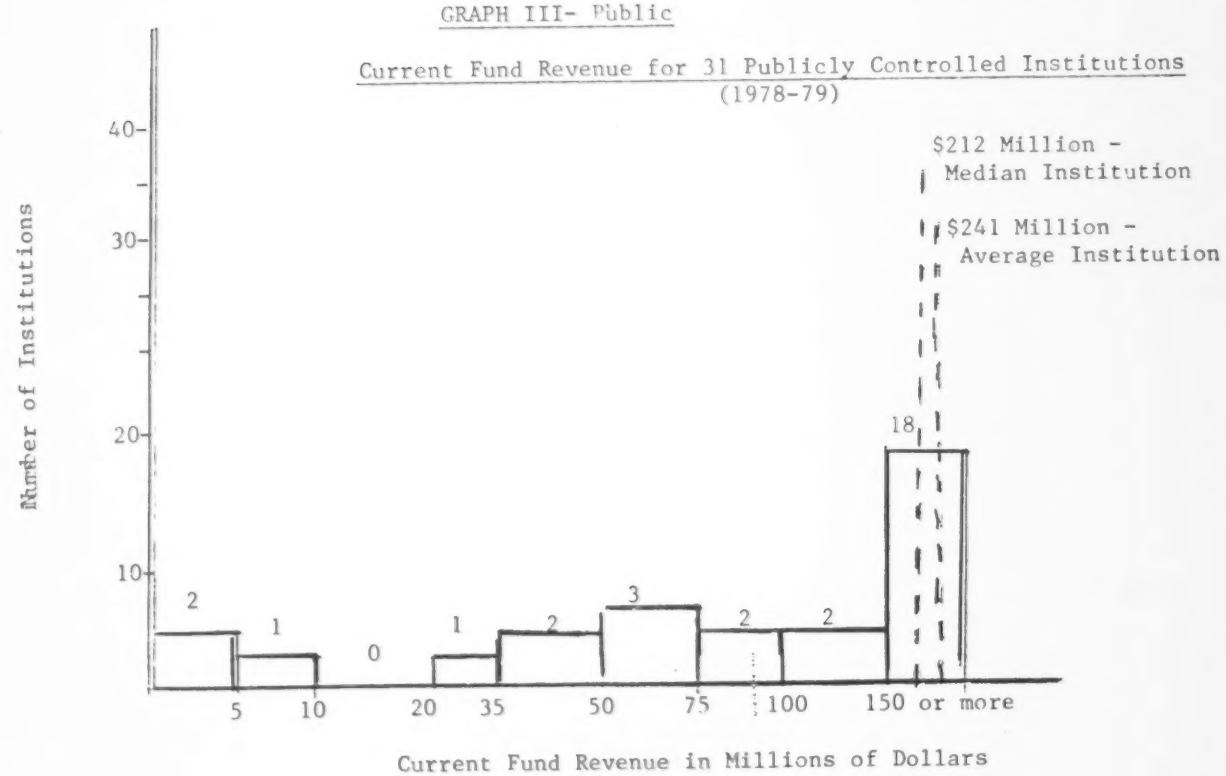
GRAPH III

Current Fund Revenue for 98 Independent Institutions
(1978-79)



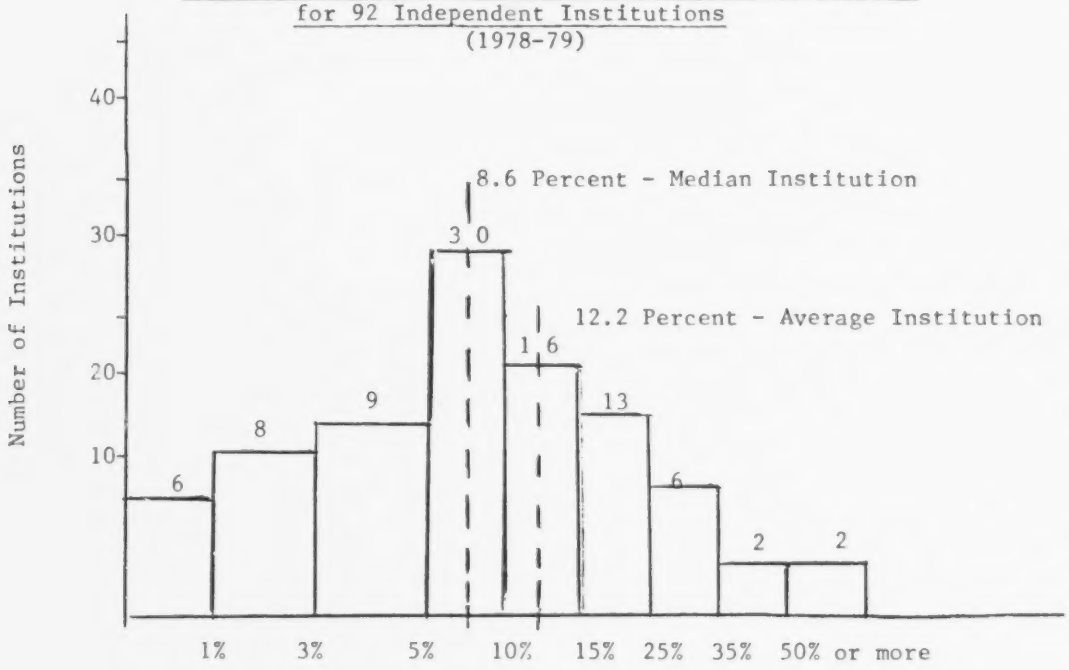
GRAPH III- Public

Current Fund Revenue for 31 Publicly Controlled Institutions
(1978-79)



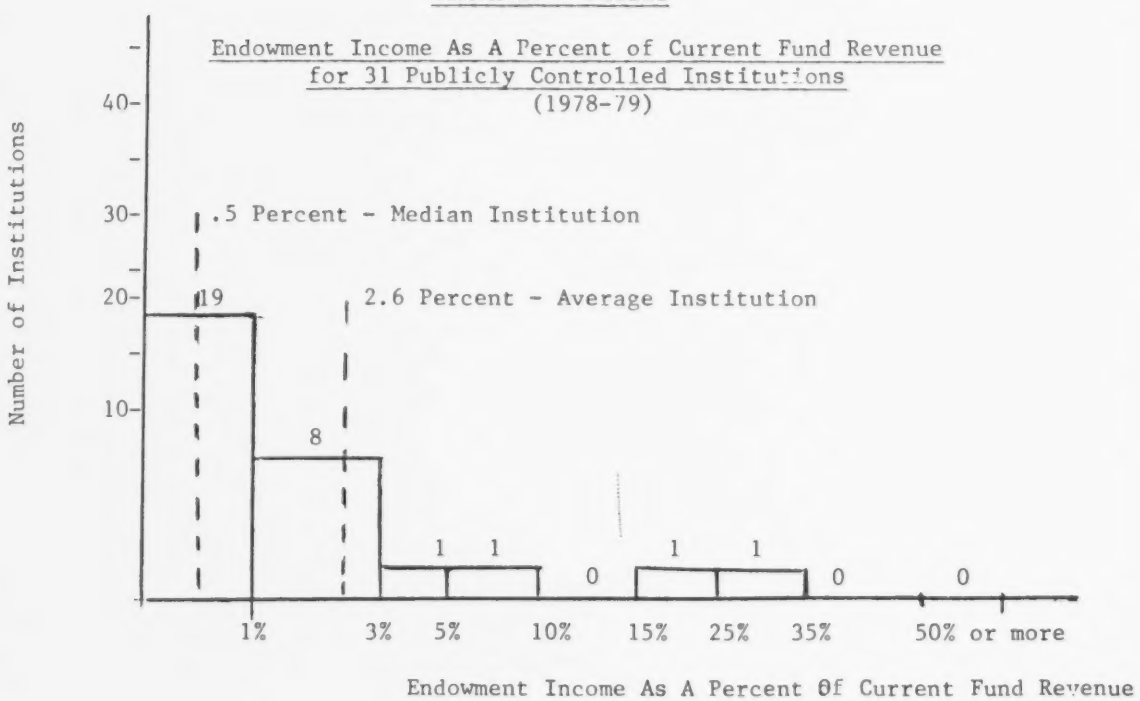
GRAPH IV -Independent

Endowment Income As A Percent of Current Fund Revenue
for 92 Independent Institutions
(1978-79)



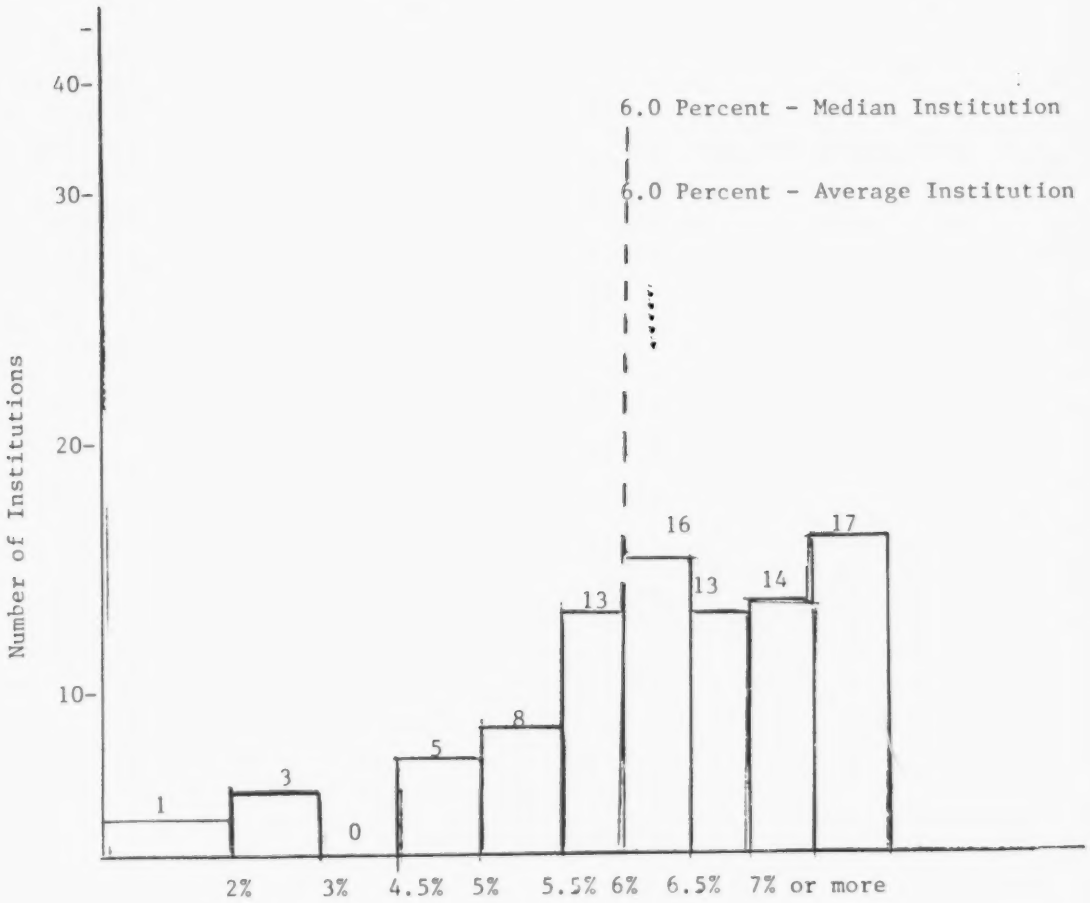
GRAPH IV - Public

Endowment Income As A Percent of Current Fund Revenue
for 31 Publicly Controlled Institutions
(1978-79)



GRAPH V

Budget Guideline--Endowment Income Spent As A Percent Of
Average Market Value Of The Endowment* Of
90 Independent Institutions
(1978-79)



*Excluding life income funds

The 1979 median budget guideline shows a .4% increase over 1978, an increase over 1977 of .3% , the latter being an increase over 1976 of .28%. This appears to be consistent with the shifting of endowments to greater income-producing investments and the increase in endowment principal as discussed earlier. The 6.0% budget guideline is .4% below the average yield for independent institutions. One explanation for this may be that a number of institutions are adding income to principal to compensate for the loss of real endowment as a result of inflation and security market performance. Budget guideline figures are net of life income funds; if such funds were included, the median and average responses would increase by .3% and .2%.

Endowment Coverage

Graph VI shows the distribution of 98 independent institutions in terms of their average endowment as of June 30, 1978, and June 30, 1979, divided by current fund expenditures. For example, for two institutions the average market value of the endowment was 7.5 times greater than current fund expenditures. On the other hand, 14 institutions could not cover 50% of their current fund expenditures with their entire endowment. The endowment of the average institution is 2.20 times greater than current fund expenditures. The endowment of the median institution is 1.64 times greater.

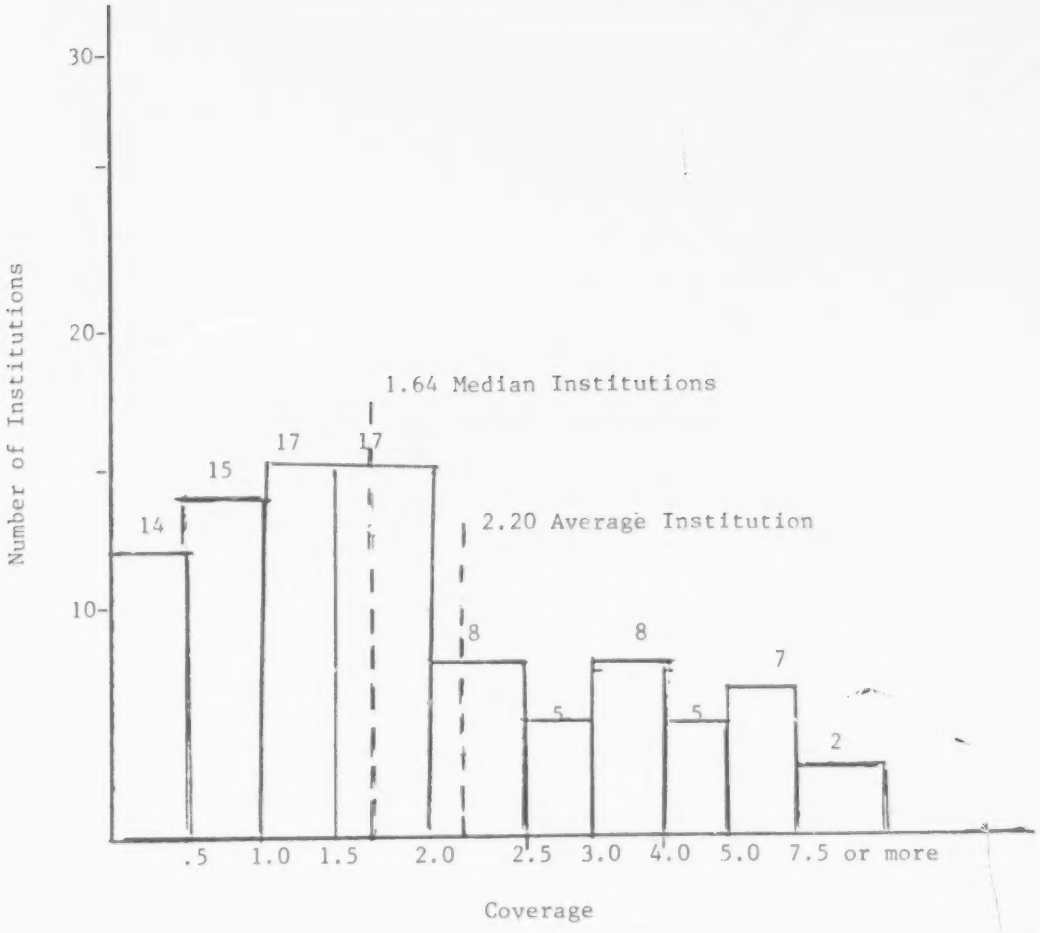
In terms of a liquidity measure one could say that the median institution could exist using its endowment 1.64 years if it did not receive any current fund revenues to meet its current fund expenditures. The statement is far from correct in that if an institution were unable to meet its expenses and had to rely on endowment to do so, only the quasi-endowment component of total endowment would be readily available. The terms of the true endowment component would have to be reviewed carefully to determine its expendability. For purposes of "real liquidity" a separate measure for quasi-endowment only could be used. This 1.64 in 1979 compared with 1.66 in 1978. It is worth noting that the median response in the 1977 study was 1.83 years and in the 1976 study was 2.01 years. Thus, slight slippage occurred in fiscal 1979 which seems consistent with the reduction in real purchasing power referred to earlier in this report. Endowment wealth increased 8.0%, inflation 10.9% and investment performance 10.8%. The 1979 endowment coverage figure excluded life income funds. If life income funds were included the median and average response would increase to 1.70 and 2.30 respectively.

Total Return (Yield and Appreciation)

In terms of applying the total return concept (the spending of yield plus a prudent portion of appreciation) to help meet current year expenses, 142 of the 147 institutions responded as shown in Table 34.

Graph VI

Endowment* Coverage of Current Fund Expenditures
for 98 Independent Institutions
(1978-79)



*Excluding life income funds

Table 34

Adoption of Total Return for Budgeting Purposes

	Number Answering	Percent Answering
Adopted Total Return Concept	38	27%
Abandoned Total Return Concept	14	10
Are Considering Adopting Total Return Concept	11	8
Considered and Rejected Adopting Total Return Concept	41	28
Have Not Considered Adopting Total Return Concept	38	27
TOTAL	142	100%

Table 34 indicates that 14 institutions abandoned the total return concept, five more than had reported the prior year. These are listed at the end of Exhibit IV. Only one additional institution has adopted total return in the past three years. As a practical application the total return concept is becoming less important to many institutions. This conclusion is drawn from the fact that over two-thirds of the institutions applying total return for budgeting purposes and indicating how much appreciation was spent under their formula, indicated that the yield (interest and dividends) under their formula was sufficient to the extent that no appreciation at all was spent.

The responses of the 35 institutions applying total return for budgeting showed that 2% applied total return to true endowment only, 4 (11%) to quasi-endowment only, and 29 (83%) to both true and quasi-endowment. For the 38 institutions reporting their market valuation and indicating the use of total return for budgeting purposes, 35 were privately-supported institutions and three were state-supported.

Relatively speaking more heavily endowed institutions have had a greater tendency to apply total return for budgeting purposes. However, a significant number of institutions in all market size categories apply total return, indicating that there does not seem to be a particularly strong correlation between endowment size and the adoption of total return for budgeting purposes, nor does there appear to be a correlation between endowment size and fund application (true, quasi-, or both) in using total return for budgeting. That is, of the four institutions applying total return to quasi-endowment only, the size of the endowment did not fall into any particular range. The same was true for those 29 institutions applying total return to both true and quasi-endowment.

There also appears to be a relationship between institutions applying the total return concept and endowment income as a percentage of current fund revenue. Institutions applying the total return concept for budgeting had endowment which contributed almost two times more to current fund revenue than those that did not.

Total Return Spending Formulas

Of the 38 institutions that adopted total return for budgeting purposes, 33 described their method of application (Exhibit IV). An overview of responses shows that about two-thirds of the institutions determine the amount of total return to be drawn from endowment based on a formula whereby a spending percentage is applied to the endowment market value.

Approximately half of these institutions use a three-year market average to determine the base upon which to apply the spending rate, and approximately one-quarter of these institutions use a five-year average. About one-fifth of those reporting have modified their formulas within the last three years. These respective formula changes are also shown in Exhibit IV.

Endowment Support

Endowment principal and income per full-time equivalent (FTE) student and per faculty member for independent institutions are shown in Tables 35 through 39. No comparable tables have been produced for public institutions because of the general lack of significance placed on endowments in the area. Endowment support for approximately 70% of the public institutions responding was in the lowest category range for independent institutions, and over 85% of public institutions responding were in the lowest two categories.

Table 35

Independent Institutions - Endowment Principal Per FTE Student (1978-79)

Amount	Number of Institutions
Less than $1,000	4
$1,000 to $5,000	18
$5,000 to $10,000	19
$10,000 to $15,000	17
$15,000 to $20,000	10
$20,000 to $25,000	6
$25,000 to $35,000	11
$35,000 to $50,000	8
$50,000 to $75,000	5
Greater than $75,000	5
TOTAL	103
Average Institution	$20,250
Median Institution	$11,700

Table 36

Independent Institutions - Endowment Income Per FTE Student (1978-79)

Amount	Number of Institutions
Less than $100	9
100 to $200	7
200 to $300	7
300 to $500	12
500 to $750	13
750 to $1,000	8
1,000 to $1,500	9
1,500 to $2,000	11
2,000 to $4,000	7
Greater than $4,000	5
TOTAL	88
Average Institution	$1,125
Median Institution	$ 680

Table 37

Independent Institutions - Endowment Principal Per Faculty Member (1978-79)

Amount	Number of Institutions
Less than $25,000	9
25,000 to $50,000	9
50,000 to $75,000	5
75,000 to $100,000	10
100,000 to $125,000	9
125,000 to $150,000	6
150,000 to $200,000	16
200,000 to $300,000	9
300,000 to $400,000	13
Greater than $400,000	14
TOTAL	100
Average Institution	$224,350
Median Institution	$156,800

Table 38

Independent Institutions - Endowment Income
Per Faculty Member (1978-79)

Amount	Number of Institutions
Less than $1,000	8
1,000 to $2,000	2
2,000 to $3,000	7
3,000 to $4,000	6
4,000 to $5,000	5
5,000 to $7,500	11
7,500 to $10,000	10
10,000 to $15,000	10
15,000 to $20,000	13
Greater than $20,000	13
TOTAL	85
Average Institution	$12,825
Median Institution	$ 9,050

The six-year record of the average and median response of independent institutions for endowment principal per FTE student and faculty member is shown in Table 39. The 1979 median figure shows a slight increase in principal and income per FTE student over the prior year, but about a 15% increase per faculty member. This might indicate a declining number of full-time students, or a relative increase of FTE students to faculty.

Table 39

Five-Year Endowment Record - Principal and Income Per FTE Student and Faculty Member

	Principal per FTE Student		Income per FTE Student	
	Average Response	Median Response	Average Response	Median Response
1979	$20,250	$11,700	$1,125	$680
1978	18,250	11,600	1,250	665
1977	17,725	10,000	950	585
1976	18,650	11,750	915	540
1975	15,550	9,400	800	510
1974	14,800	8,200	800	430
	Principal per Faculty Member		Income per Faculty Member	
1979	$224,350	$156,800	$12,825	$9,050
1978	200,100	136,500	11,575	7,750
1977	189,000	135,000	10,200	6,800
1976	192,000	138,000	11,000	7,050
1975	162,000	118,000	8,700	6,250
1974	148,000	100,000	8,100	5,100

Investment Management

Thirty-two institutions indicated that they manage at least 80% of their endowments internally. Exhibit V lists these along with the institutions which use outside management and their respective advisors. The exhibit indicates whether the outside manager is retained for stock (S) or bond (B) management or both (S,B). Sixty-eight institutions indicated that they have more than 1 advisor. Sixty-two of these institutions indicated they had more than 1 stock manager and 51 had more than 1 bond manager. The foregoing does not include the 44 institutions which use The Common Fund for Non-Profit Organizations as an investment advisor for stocks, bonds, or cash. The 32 internally managed institutions are fairly well distributed among the various size investment pool categories as shown in Table 40, with the greatest concentration among the largest pools.

Table 40

Internal Investment Management

Investment Pool Size	Number in Each Group	% of Total
Over $100 million	12	38%
$50 to $100 million	2	6
$25 to $50 million	5	16
$10 to $25 million	8	25
5 to $10 million	3	9
Under $5 million	2	6
TOTAL	32	100%

Custodial Arrangements

Nine institutions indicated that they serve as their own custodian for at least 80% of their assets. These institutions are shown in Exhibit IV as are the institutions which use outside custodians and the respective financial institution retained. Of the 119 indicating they use outside custodians, 61 use more than one custodian.

Custodial Fees

Twenty-two institutions indicated that their custodian is also their investment advisor, and it was not possible to identify separately the cost for each service. Excluding these institutions and the nine institutions which do not use outside custodians, of the 119 remaining institutions 97 (82%) provided information on custody fees. These fees excluded any custody costs relating to security lending and option writing.

It is difficult to find an accurate measure to compare institutional custody fees. This is because many special arrangements have developed between institutions and their custodians. For example, from the 1975 survey it is known that institutions with longer custodial relations tend to pay less. Custodial fees will also vary because of the different security positions, etc. The foregoing should be taken into consideration when reviewing custodial fees which are compared based on fees paid as a percent of assets under custody.

Table 41 shows that the average institution pays .057% of the market value of assets under custody. Eight institutions pay less than .01%, 11 others pay .01 and .02%, etc. There appears to be a realization of economies of scale as institutions over $50 million pay .031%, institutions between $10 to $50 million pay .073%, and institutions under $10 million pay .248%.

Table 41

Custodial Fees as a Percent of Assets under Custody
1978-79

	Under $10 Million	$10 to $50 Million	Over $50 Million	All Institutions
Under .01%	2	2	4	8
.01 to .02%	0	4	7	11
.02 to .03%	0	2	8	10
.03 to .04%	0	3	6	9
.04 to .05%	1	1	4	6
.05 to .06%	0	2	6	8
.06 to .07%	0	4	0	4
.07 to .08%	0	4	0	4
.08 to .09%	1	0	1	2
.09 to .10%	1	2	0	3
.10 to .12.5%	1	3	2	6
.12.5 to .15%	0	5	1	6
.15 to .17.5%	0	2	0	2
.17.5 to .20%	1	1	0	2
Over .20%	9	7	0	16
TOTAL	16	42	39	97
Median Responses	.248%	.073%	.031%	.057%

EXHIBIT I

1979 NACUBO COMPARATIVE PERFORMANCE STUDY

147 PARTICIPATING INSTITUTIONS (REPRESENTING 169 POOLS)

Academy of the New Church
Albion College
Alfred University
Allegheny College
Alma College
American University
Amherst College
Arizona State University
Baldwin-Wallace College
Barnard College
Baylor College of Medicine
Berea College
*Berry College
Boston University
Brandeis University
Brown University
Bryn Mawr College
Bucknell University
Carleton College
Carnegie-Mellon University
Carroll College
Case Western Reserve University
Clark University
Colby College
College of Wooster
Colorado College
Columbia University
Columbia University, Teachers College
Connecticut College
Cooper Union for the Avd. of Sci. & Art
Cornell College
Cornell University
Dartmouth College
Dickinson College
Doane College
Drake University
Drew University
Duke University
Eastern Michigan State University
Franklin and Marshall College
George Washington University
Georgetown University
Hamilton College
Hampton Institute
Harvard University
Hendrix College
*Hobart and William Smith Colleges
Hope College
Indiana University
Johns Hopkins University
Kenyon College
Lafayette College
Lehigh University
*McGill University
Marquette University
Massachusetts Inst. of Tech.
Mercer University
Michigan State University
Middlebury College
Monmouth College
Mount Holyoke College
Muhlenberg College
New York University
Northwestern University
Oakland University
Oberlin College
Occidental College
Ohio State University
Ohio University
Ohio Wesleyan University
Oregon St. Bd. of Higher Educ.
Oregon State Univ. Foundation
Pennsylvania State University
Phila. College of Textiles
Princeton University
*Principia College
Reed College
Rensselaer Polytechnic Inst.
Rhode Island School of Design
Rice University
Rochester Institute of Tech.
Rockefeller University
Rutgers, the State University
St. Norbert College
Simmons College
Smith College
Spelman College
*Stanford University
SUNY at Binghamton
SUNY at Buffalo
Swarthmore College
Sweet Briar College
Syracuse University
Trinity University

Tufts University
University of Akron
University of Arizona
University of Arkansas
University of California
University of Chicago
University of Cincinnati
University of Connecticut
University of Dayton
University of Delaware
University of Denver
University of Evansville
University of Illinois
University of Maine
University of Maryland
University of Miami
University of Michigan
University of Minnesota
University of Mississippi
University of Missouri
University of Nebraska
University of Nevada
*University of North Carolina, Greensboro
University of Notre Dame
University of Oregon Development Fund
University of Pennsylvania
University of Pittsburgh
University of Puget Sound
University of Rochester
University of Santa Clara
University of Tampa
University of Tennessee
University of Texas
University of Tulsa
University of Vermont
University of Virginia
University of Wisconsin Found.
University of Wisconsin System
Vassar College
Virginia Military Institute
Wake Forest University
Washburn College
Washington State University
Washington University
Wellesley College
Wesleyan University
Wheaton College
Whitman College
Whittier College
Willamette University
Williams College
*Worcester Polytechnic Institute
Yale University

Provided Endowment Characteristics but not Performance Data

Calfornia Institute of Technology
Denison University
Southern Methodist University
University of Akron Development Foundation
University of Alabama System
University of Richmond
University of Southern California

*Participated in Section I only.

EXHIBIT II

1979 COMPARATIVE PERFORMANCE STUDY

CHARACTERISTICS OF PARTICIPATING INVESTMENT POOLS

Pool Characteristics:

1) This is an official pooled investment fund.

2) This is a separately invested fund which was unitized to enable performance to be accurately measured.

3) This is a combination of more than one separately invested unitized fund.

4) This is a pool consisting of only those assets over which management has discretion.

5) This is an official pooled life income fund.

Pool Composition:

1) All invested funds, endowment, quasi-endowment, and funds invested for plant or other purposes but temporarily invested in the pool.

2) Endowment and quasi-endowment.

3) Endowment only.

4) Quasi-endowment only.

Investment Objectives:

1) Total Return - Investment returns are sought from both market appreciation and dividends and interest; current income requirements generally do not dictate the kind of securities that may be held, as primary emphasis is on long-term overall return.

2) Balanced - The pooled funds are invested in such a manner as to minimize investment risks without unduly sacrificing current income or the possibility for some long-term growth. This is usually done by investing a portion of the pool in fixed income securities.

3) Income Orientated - Investment policy is dictated by current income needs; market appreciation is never utilized for current operating purposes, and primary emphasis is on current income maximization.

Market Value:

A. Over $100 Million.
B. $50 to $100 Million.
C. $25 to $50 Million.
D. $10 to $25 Million.
E. $5 to $10 Million.
F. Under $5 Million.

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1979 NACUBO COMPARATIVE PERFORMANCE STUDY
CHARACTERISTICS OF PARTICIPATING INVESTMENT POOLS

No.	Code Name	Pool Char	Pool Compos	Invest Object	Mkt Val Size	% Cash 1979	% Bonds 1979	% Stocks 1979	% Miscel-laneous Assets 1979	Non-Control-lable Assets 1979	6/30/79 # Bonds	6/30/79 # Stocks	1979 Bond Turn-Over %	1979 Stock Turn-Over %
1	E1	1	2	1	B	21	22	52	5	6	42	108	N/A	N/A
2	E2	1	3	2	D	9	33	55	3	3	26	37	30.6	12.7
3	E3	1	2	1	D	4	21	75	0	0	22	50	39.3	10.1
4	E4	1	2	1	D	7	29	58	6	0	21	61	149	43
5	E5	1	1	1	B	6	8	83	3	4	19	119	14	35
6	E6	1	2	2	B	8	24	61	7	7	13	40	2.8	5
7	E7	1	2	1	E	16	18	66	0	0	11	24	N/A	N/A
8	E8	1	2	2	A	15	23	58	4	3	14	94	92	43
9	E9	1	2	1	A	22	0	70	9	0	0	38	N/A	22
10	E10	1	2	1	D	8	30	62	0	0	21	58	149	43
11	E11	1	1	1	A	12	11	77	0	0	78	155	52.2	25.7
12	E12	5	4	3	F	13	37	50	0	0	8	19	6.5	2.8
13	E13	1	2	3	E	32	26	39	3	1	N/A	N/A	0	5
14	E14	1	2	2	D	0	41	59	0	16	29	38	19.6	7
15	E15	3	1	2	C	2	32	51	15	1	22	64	13	20
16	E16	1	2	1	D	14	28	50	8	5	32	41	0	12.7
17	E17	1	2	2	B	12	30	53	5	4	31	39	102	21
18	E18	4	1	1	A	9	16	75	0	0	71	43	17.4	6.5
19	E19	1	1	1	C	14	10	76	1	3	4	128	11.6	19.5
20	E20	1	2	2	C	26	19	54	1	0	29	67	5	56
21	E21	1	3	2	B	14	28	57	1	2	25	65	N/A	N/A
22	E22	1	3	3	D	14	50	36	0	0	58	37	1.6	1.1
23	E23	1	2	3	F	1	62	36	0	0	22	39	19	15.8
24	E24	1	2	1	D	8	21	71	0	0	11	24	27.3	62.1
25	E25	3	2	1	D	5	7	88	0	0	14	86	N/A	N/A
26	E26	1	2	2	D	17	5	77	1	1	12	62	20	13.8
27	E27	1	2	1	B	12	27	60	2	1	39	346	136	68
28	E28	1	2	2	A	19	58	22	2	2	115	105	N/A	N/A
29	E29	1	2	2	A	2	40	56	3	0	38	59	27.2	17.5
30	E30	2	1	2	B	6	33	59	1	2	37	96	35.9	42.6
31	E31	4	1	2	A	8	33	54	5	8	87	182	N/A	N/A
32	E32	1	2	2	C	25	33	42	0	0	83	55	N/A	5.4
33	E33	4	2	2	A	7	24	69	0	0	50	143	124.9	31.1
34	E34	1	2	2	A	5	7	72	16	16	26	168	13.8	20.1
35	E35	1	2	2	C	11	35	54	1	1	34	76	N/A	N/A

No.	Code Name	Pool Char	Pool Compos	Invest Object	Mkt Val Size	% Cash 1979	% Bonds 1979	% Stocks 1979	% Miscel-laneous Assets 1979	Non-Control-lable Assets 1979	6/30/79 # Bonds	6/30/79 # Stocks	1979 Bond Turn-Over %	1979 Stock Turn-Over %
36	F36	4	1	2	A	19	27	52	3	12	20	131	70	73
37	F37	1	2	2	C	16	21	53	11	5	79	101	11.6	16.1
38	F38	1	2	2	A	6	26	68	0	3	20	90	164	26
39	F40	1	2	1	A	13	11	70	6	5	60	200	N/A	N/A
40	F42	1	2	1	C	44	12	43	1	9	11	64	18.5	24.3
41	F43	3	2	2	C	2	26	71	1	0	17	63	48.4	42.4
42	F44	1	3	2	F	18	25	50	7	0	7	30	17	6
43	E45	1	2	1	A	3	18	78	2	5	56	43	51.3	32.4
44	F46	1	2	2	A	9	20	71	0	1	N/A	N/A	14.9	10.8
45	E47	1	1	3	D	11	54	35	0	0	54	45	72	27
46	F48	4	2	2	F	2	51	47	0	1	21	20	9	10
47	F49	1	2	1	D	9	19	71	1	6	53	89	N/A	N/A
48	E50	4	2	2	C	32	41	27	0	0	22	14	0	42.4
49	E51	1	2	1	C	36	12	39	13	13	3	20	N/A	N/A
50	E52	1	2	2	D	9	23	50	18	4	5	37	21	51
51	F53	1	2	2	C	3	22	71	4	5	35	65	N/A	N/A
52	E54	1	2	1	C	5	23	72	0	1	15	64	9	19
53	F55	1	4	2	D	11	19	70	0	0	10	35	N/A	N/A
54	E56	1	2	2	C	7	90	3	0	0	57	3	9.6	9
55	E57	1	1	2	A	17	28	54	0	0	133	187	295	7.7
56	E58	1	2	2	F	67	33	0	0	0	29	0	4.4	11.3
57	F59	1	2	2	D	24	30	46	0	0	8	24	51.3	10.5
58	E60	1	2	2	D	8	20	69	3	1	20	75	20	8.2
59	E61	1	2	2	A	34	9	57	0	0	17	134	N/A	N/A
60	F62	1	2	1	E	9	46	42	3	0	20	42	86.5	36.3
61	E63	1	2	1	F	12	18	70	0	0	6	159	98.5	62.1
62	F64	1	2	1	E	23	42	35	0	0	29	46	83	124
63	E66	1	1	1	D	4	29	67	0	9	19	37	74	10
64	F67	1	2	2	C	2	29	69	0	0	33	68	3.8	16.4
65	E68	3	1	1	C	23	26	51	0	3	27	92	26.3	32.6
66	F69	1	2	2	F	0	28	69	3	0	35	39	35.1	18
67	E71	1	2	1	C	27	20	54	0	0	0	0	N/A	N/A
68	F72	1	1	2	F	8	26	58	8	8	N/A	N/A	N/A	N/A
69	E73	3	2	2	A	16	34	43	8	8	72	164	110.6	20.5
70	E74	1	2	2	F	2	35	63	0	0	50	50	N/A	N/A

No.	Code Name	Pool Char	Pool Compos	Invest Object	Mkt Val Size	% Cash 1979	% Bonds 1979	% Stocks 1979	% Miscel-laneous Assets 1979	Non-Control-lable Assets 1979	6/30/79 # Bonds	6/30/79 # Stocks	1979 Bond Turn-Over %	1979 Stock Turn-Over %
71	F75	1	1	1	C	8	25	67	0	0	64	67	4.9	7.8
72	F76	1	2	2	F	18	27	55	0	0	9	50	60.7	37.8
73	F77	5	2	2	F	10	38	52	0	0	13	46	66.3	60.1
74	F78	1	2	2	D	39	39	22	0	0	29	30	18.5	14.6
75	E80	3	2	2	C	28	35	33	4	1	N/A	N/A	N/A	N/A
76	F81	1	2	2	F	30	35	35	0	0	20	32	76.9	1.7
77	F82	1	2	2	F	0	61	39	0	0	28	16	N/A	N/A
78	F83	1	2	2	F	0	56	44	0	0	16	18	N/A	N/A
79	E84	1	3	2	F	9	31	59	1	1	17	37	71.6	14.2
80	F85	2	2	2	C	22	28	39	10	9	45	53	13.6	37.7
81	F86	3	2	1	D	47	13	39	0	1	36	22	5.5	37.9
82	E87	5	2	3	F	0	100	0	0	0	5	0	0.9	0
83	E88	5	2	3	F	1	99	0	0	0	12	0	0.9	0
84	E89	1	1	2	C	18	15	46	21	20	N/A	N/A	82.2	65.5
85	E90	4	1	3	A	10	43	36	12	0	59	35	N/A	N/A
86	E91	1	3	2	F	33	34	34	0	0	15	21	93	30
87	E92	5	2	2	F	16	34	50	0	0	16	28	84	26
88	F93	1	4	1	C	20	4	68	8	1	6	77	0	12
89	E94	1	2	2	E	2	18	80	0	0	13	40	5.6	11.5
90	E95	1	2	2	D	22	25	52	1	0	36	73	33.2	48.8
91	F96	1	3	1	B	18	40	42	0	0	66	58	173	6
92	C1	1	3	2	D	8	26	66	0	0	18	35	3.9	4.3
93	C2	1	1	1	C	12	41	46	1	30	55	56	58	82
94	C3	1	3	2	C	5	29	60	7	7	61	65	8.3	4.2
95	C4	1	2	2	D	1	19	81	0	0	42	60	0	5
96	C5	2	2	2	E	5	40	54	1	0	22	41	N/A	N/A
97	C9	1	2	2	A	21	33	43	4	4	187	137	N/A	N/A
98	C10	1	1	2	F	6	0	94	0	0	0	20	26.3	27
99	C11	2	2	2	F	13	29	58	0	0	33	43	10.4	24.5
100	C13	2	3	1	E	19	30	51	0	0	51	48	0	31.1
101	C15	1	2	1	A	8	23	64	5	0	60	93	50	10.2
102	C16	4	4	1	C	12	24	59	5	5	34	60	3.1	1.6
103	C17	1	2	2	C	19	25	56	0	5	51	197	152.6	23.8
104	C18	1	1	1	D	26	13	57	4	0	4	96	4	18
105	C19	1	2	1	C	27	33	40	0	1	85	56	15.5	2.9

No.	Code Name	Pool Char	Pool Compos	Invest Object	Mkt Val Size	% Cash 1979	% Bonds 1979	% Stocks 1979	% Miscel-laneous Assets 1979	Non-Control-lable Assets 1979	6/30/79 # Bonds	6/30/79 # Stocks	1979 Bond Turn-Over %	1979 Stock Turn-Over %
106	C20	3	3	1	E	35	41	22	2	2	15	27	0	13
107	C21	1	2	2	D	12	46	42	1	0	32	32	15.5	60.1
108	C23	1	2	2	F	15	53	25	7	8	34	51	3.1	16.1
109	C24	1	2	1	D	6	26	68	0	0	23	41	9.3	16.8
110	C25	4	2	2	A	9	26	66	0	0	30	120	87.6	16.8
111	C26	1	2	1	E	0	70	30	0	0	N/A	N/A	398.2	13.4
112	C27	1	2	2	A	14	19	60	7	1	N/A	N/A	48.8	12.2
113	C30	1	3	2	F	16	23	62	0	0	11	31	28	31
114	C31	1	2	1	A	0	30	70	0	0	250	75	7.4	4.2
115	C32	1	2	2	D	19	42	38	1	2	0	2	7	23
116	C33	5	2	3	F	3	54	43	0	0	29	26	4.5	19.4
117	C34	1	2	1	D	20	26	44	10	10	1	3	100	100
118	C35	1	2	1	D	25	2	42	31	15	3	51	33.2	27.2
119	C36	3	2	2	E	20	30	50	0	0	16	30	13.8	22.3
120	C37	3	2	3	F	23	58	20	0	0	15	17	7.6	19.9
121	C38	4	1	2	C	13	21	44	22	0	78	49	0	15.8
122	C39	2	2	1	C	10	24	67	0	0	34	53	130	100.5
123	C40	1	2	2	F	20	6	74	0	1	4	34	67.5	16.4
124	C41	1	3	2	D	8	21	67	4	4	39	50	0	17
125	C42	3	2	1	B	15	19	66	1	1	N/A	N/A	N/A	N/A
126	C43	4	1	1	F	12	26	62	0	0	7	14	17.8	81.5
127	C44	1	2	1	F	12	47	41	0	0	2	2	9	12
128	C46	4	2	2	E	24	22	33	21	27	20	43	71.6	18.7
129	C47	1	2	2	D	8	43	49	0	0	62	37	0.4	23
130	C48	2	2	1	D	42	0	58	0	0	0	46	N/A	253.8
131	C49	1	2	2	D	5	48	46	1	1	N/A	N/A	N/A	N/A
132	C50	1	2	2	F	19	24	57	0	0	12	31	N/A	2.6
133	C51	1	2	2	F	11	35	55	0	1	4	19	0	8.6
134	C52	1	2	2	F	24	35	42	0	1	20	43	0	18.5
135	C54	1	1	2	A	21	32	38	9	14	54	64	37.5	43.7
136	C55	1	3	2	A	5	21	74	0	0	76	99	5.6	2.3
137	C56	1	2	2	A	13	17	65	6	1	40	74	45.9	10.4
138	C58	1	2	1	D	8	27	65	0	0	N/A	N/A	N/A	N/A
139	C59	1	2	1	E	18	21	23	38	0	11	41	6	42.8
140	C60	1	2	2	B	3	46	51	0	1	76	84	N/A	N/A

No.	Code Name	Pool Char	Pool Compos	Invest Object	Mkt Val Size	% Cash 1979	% Bonds 1979	% Stocks 1979	% Miscellaneous Assets 1979	Non-Controllable Assets 1979	6/30/79 # Bonds	6/30/79 # Stocks	1979 Bond Turn-Over %	1979 Stock Turn-Over %
141	C61	1	3	2	A	5	54	41	0	0	561	139	6.2	1.3
142	C62	1	2	1	F	29	45	26	0	0	19	22	2.9	37.5
143	C63	1	2	1	C	11	13	75	1	1	14	56	45.1	23.5
144	C64	1	2	2	E	0	45	32	23	0	35	30	4.5	0
145	C65	1	3	2	C	7	30	63	0	0	78	78	5.6	10.8
146	C66	1	2	1	D	41	2	53	4	4	1	60	6	71
147	C67	1	2	2	E	26	44	30	0	0	43	45	4.3	0
148	C69	1	2	2	F	77	0	23	0	0	N/A	5	N/A	0
149	C70	1	2	2	D	13	9	47	31	10	3	48	N/A	14
150	C71	1	2	2	D	9	42	46	3	5	65	81	31.2	24.6
151	C72	1	3	2	B	14	24	51	11	1	31	57	50.4	25.1
152	C73	1	3	2	F	8	56	36	0	0	19	26	N/A	N/A
153	C74	1	2	2	D	27	7	9	57	7	47	70	1.1	11.9
154	C75	1	3	1	F	4	24	71	0	0	9	31	29.6	7.8
155	C76	1	2	1	D	11	22	67	0	0	15	31	24	44
156	C77	3	2	1	A	3	9	88	0	0	35	147	0.1	3.2
157	C78	1	2	2	E	17	52	31	0	0	15	33	11	10
158	C79	1	2	2	D	5	41	54	0	0	37	48	65.8	50
159	C80	2	2	2	F	18	39	43	0	0	20	33	14.5	18.1
160	C82	3	2	2	B	19	22	59	0	1	N/A	N/A	41	51
161	C84	1	2	2	D	4	54	42	0	0	37	38	0	1
162	C85	1	2	2	E	9	52	39	0	0	26	19	0	6
163	C86	1	2	2	E	30	25	45	0	0	12	54	6	3.5
164	C88	4	2	2	E	33	31	27	10	10	24	26	13.4	17.2
165	C89	3	2	2	D	13	37	50	0	0	54	50	8.5	29.6
166	C91	1	2	2	F	26	47	27	0	1	13	15	10.9	14.9
167	C92	1	2	2	F	36	22	39	3	12	8	25	80.3	101.7
168	C93	2	2	1	D	1	24	75	0	0	13	40	5.9	6.9
169	C94	1	2	2	D	6	47	17	30	1	22	71	0	10
# ans		169	169	169	169	169	169	169	169	169	157	158	136	142
mean average						14.7	30.1	51.8	3.6		36	59	38.7	26.2
weighted average						12.6	26.4	58.2	2.9		23	46	17	18

EXHIBIT III

DETAILED PERFORMANCE SUMMARY

AVERAGE ANNUAL TOTAL RETURN

This exhibit shows in detail the average annual total return performance of all investment pools and various bond and equity indices for the one-, three-, five-, and ten-year periods ending June 30, 1979. For example, investment pool E94 for the one-year period had a return of 25.52%, which was the highest return among all pools and indices in the 1979 Comparative Performance Study. This pool had an average annual return of 7.61% for the three-year period and ranked thirty-sixth. Performance of pools is also ranked based on investment objective and investment size categories. Lastly, beta and efficiency measure ranking is shown for those pools with a least five years' data. The table below shows the number of pools participating based on the various groupings.

Number of Pools Participating

Grouping - Ending June 30, 1979	1 Year	3 Years	5 Years	10 Years
Page 60 - All Pools	169	166	154	111
Page 64 - Total Return	56	55	51	38
Page 66 - Balanced or Income Oriented	113	111	103	73
Page 69 - Over $50 Million	43	41	40	36
Page 71 - $10-$50 Million	73	72	69	51
Page 72 - Under $10 Million	53	53	45	24
Page 74 - Equity and Bond Only	E-26 B-14	E-22 B-13	E-15 B-6	
Page 77 - Beta and Efficiency				

ALL ENDOWMENT POOLS
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	1 YEAR RETURN	#	3 YEAR RETURN	#	5 YEAR RETURN	#	10 YEAR RETURN
1	F94	25.52 %	36	7.61%	N/A	%	N/A	%
2	C54	24.54	2	12.59	18	11.03	N/A	
3	F26	23.51	8	9.7	30	9.9	77	4.12
4	C40	21.51	81	6.03	3	13.36	4	7.87
5	C74	20.35	5	10.45	41	9.31	1	9.68
6	C35	19.39	1	12.87	7	12.43	N/A	
7	F19	19.22	9	9.62	24	10.28	63	4.52
8	F43	18.66	46	7.12	16	11.16	N/A	
9	F12	18.5	100	5.64	N/A		N/A	
10	F51	18.1	26	8.04	77	8.13	20	5.98
11	F5	17.95	17	8.74	22	10.45	36	5.39
12	C25	17.42	71	6.4	35	9.63	14	6.46
13	C63	17.32	4	10.66	15	11.39	31	5.5
14	C77	17.08	24	8.17	8	12.43	6	7.5
15	F54	16.93	7	10.38	20	10.86	61	4.56
16	COM-FDEC	16.92	6	10.42	13	11.64	N/A	
17	F45	16.91	18	8.72	12	11.75	33	5.47
18	F37	16.29	54	6.91	56	8.82	N/A	
19	F34	15.97	59	6.77	113	6.87	81	4.04
20	F75	15.83	25	8.08	1	17.24	11	6.8
21	F33	15.4	102	5 55	123	6.47	N/A	
22	F61	15.04	12	9.41	10	12.18	9	6.98
23	C48	14.84	117	5	119	6.64	108	2.54
24	F11	14.68	28	7.87	51	8.96	34	5.46
25	F2	14.39	47	7.11	76	8.14	76	4.16
26	F74	14.37	157	3.26	N/A		N/A	
27	F46	13.9	146	3.91	121	6.53	67	4.42
28	F28	13.86	29	7.84	95	7.56	66	4.42
29	C15	13.76	31	7.8	31	9.89	89	3.79
30	C66	13.68	41	7.34	79	7.95	N/A	
31	SP-IND	13.64	151	3.67	94	7.59	69	4.36
32	F64	13.58	13	9.34	58	8.77	N/A	
33	F36	13.53	40	7.36	107	7.21	83	4.02
34	SP500	13.47	131	4.4	71	8.31	64	4.49
35	F49	13.43	23	8.18	44	9.13	100	3.16
36	F80	13.3	14	9.3	28	10.15	57	4.69
37	F63	13	87	5.98	134	5.83	55	4.75
38	C58	12.97	133	4.31	143	5.41	86	3.92
39	F23	12.82	111	5.22	136	5.79	26	5.68
40	C4	12.78	48	7.09	19	10.91	N/A	
41	F4	12.76	110	5.25	128	6.18	79	4.09
42	C24	12.71	16	8.94	9	12.25	N/A	
43	C18	12.68	3	12.26	2	13.59	2	8.38
44	C72	12.67	33	7.67	17	11.14	5	7.76

ALL ENDOWMENT POOLS
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	1 YEAR RETURN	#	3 YEAR RETURN	#	5 YEAR RETURN	#	10 YEAR RETURN
45	C82	12.65%	62	6.63%	91	7.76 %	102	2.95 %
46	F9	12.63	168	1.72	159	1.98	110	2.27
47	F77	12.54	44	7.15	109	7.09	N/A	
48	F42	12.36	109	5.28	N/A		N/A	
49	F44	12.29	152	3.6	120	6.54	71	4.35
50	F91	12.25	114	5.1	104	7.28	52	4.83
51	F31	12.18	N/A		N/A		N/A	
52	C56	12.1	32	7.79	39	9.37	28	5.54
53	C13	12.06	27	7.98	23	10.43	3	8.16
54	F66	12.02	142	4.02	150	4.26	N/A	
55	F57	11.82	84	6.03	48	9.03	N/A	
56	C11	11.79	91	5.85	101	7.36	50	4.67
57	F85	11.76	69	6.44	66	8.43	N/A	
58	F38	11.72	39	7.46	27	10.2	22	5.94
59	E53	11.57	38	7.48	21	10.71	24	5.76
60	F71	11.54	98	5.67	72	8.2	68	4.4
61	F18	11.44	156	3.31	135	5.83	74	4.18
62	F29	11.44	43	7.29	52	8.94	111	2.25
63	F52	11.43	120	4.95	90	7.79	87	3.9
64	F3	11.36	68	6.45	96	7.53	30	5.52
65	F16	11.35	51	7.05	78	8.03	56	4.7
66	F21	11.29	94	5.78	118	6.79	53	4.8
67	F72	11.17	45	7.14	36	9.55	49	4.92
68	C34	11.09	101	5.63	133	5.84	N/A	
69	F20	11.02	119	4.97	57	8.77	44	4.97
70	F8	10.79	64	6.57	54	8.88	60	4.57
71	C60	10.76	57	6.89	43	9.18	16	6.11
72	C50	10.73	134	4.31	115	6.82	48	4.93
73	F96	10.68	50	7.08	N/A		N/A	
74	C67	10.66	30	7.8	50	8.99	N/A	
75	C2	10.66	122	4.93	60	8.67	29	5.52
76	F55	10.61	161	2.82	146	4.99	114	1.52
77	C51	10.61	96	5.74	87	7.83	N/A	
78	E62	10.57	61	6.63	89	7.8	N/A	
79	C75	10.56	77	6.19	37	9.55	75	4.17
80	C52	10.54	88	5.93	59	8.71	51	4.86
81	C20	10.52	160	2.93	155	3.8	95	3.47
82	C26	10.52	65	6.54	49	8.99	38	5.23
83	C31	10.51	125	4.78	74	8.17	39	5.1
84	F10	10.49	149	3.75	144	5.22	94	3.52
85	C19	10.47	105	5.49	100	7.36	54	4.78
86	C93	10.4	164	2.56	N/A		N/A	
87	C55	10.4	35	7.66	32	9.8	8	7.04
88	F27	10.34	147	3.91	125	6.42	62	4.55
89	C42	10.22	135	4.26	132	5.87	92	3.63
90	F48	10.13	163	2.75	148	4.37	N/A	
91	C41	10.05	11	9.49	4	12.85	10	6.93
92	F95	9.98	107	5.39	83	7.93	73	4.22
93	F68	9.97	90	5.88	102	7.29	105	2.9
94	E6	9.97	162	2.81	116	6.81	40	5.08
95	F24	9.8	20	8.54	14	11.49	N/A	

ALL ENDOWMENT POOLS
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	1 YEAR RETURN	#	3 YEAR RETURN	#	5 YEAR RETURN	#	10 YEAR RETURN
96	F93	9.78%	159	3.02 %	N/A	%	N/A	%
97	F40	9.78	148	3.88	73	8.19	90	3.7
98	C91	9.73	80	6.04	68	8.36	N/A	
99	F90	9.72	70	6.4	114	6.83	N/A	
100	C44	9.72	10	9.56	5	12.79	88	3.82
101	F14	9.72	139	4.06	46	9.09	84	3.97
102	C43	9.68	55	6.89	80	7.95	N/A	
103	C65	9.67	56	6.89	26	10.24	15	6.3
104	C39	9.64	130	4.52	122	6.49	35	5.46
105	F67	9.59	75	6.35	34	9.66	25	5.69
106	C27	9.56	15	9.1	6	12.73	7	7.22
107	C36	9.46	145	3.92	N/A		N/A	
108	C61	9.4	N/A		N/A		N/A	
109	C86	9.31	21	8.39	38	9.39	17	6.04
110	C78	9.24	124	4.85	152	4.18	106	2.85
111	C10	9.24	95	5.75	N/A		N/A	
112	F7	9.21	170	1.37	149	4.26	N/A	
113	F73	9.2	66	6.53	88	7.82	65	4.44
114	C30	9.2	112	5.17	29	9.9	58	4.64
115	C64	9.14	79	6.1	61	8.62	23	5.85
116	F17	9.1	103	5.53	64	8.6	19	5.99
117	F76	9.08	137	4.14	141	5.59	N/A	
118	D-JONES	9.05	171	-0.62	130	5.95	82	4.03
119	C9	9	123	4.86	103	7.28	41	5.04
120	F92	8.91	78	6.12	25	10.25	12	6.55
121	F56	8.86	141	4.03	142	5.45	78	4.1
122	E89	8.85	127	4.6	93	7.65	N/A	
123	C59	8.85	113	5.13	106	7.22	N/A	
124	C17	8.81	83	6.03	124	6.44	104	2.91
125	F1	8.8	92	5.85	111	6.94	98	3.2
126	C33	8.8	97	5.69	N/A		N/A	
127	F25	8.76	58	6.85	47	9.08	80	4.07
128	C88	8.76	89	5.91	81	7.95	N/A	
129	C73	8.72	53	6.94	N/A		N/A	
130	COM-FDRD	8.72	N/A		N/A		N/A	
131	F59	8.65	99	5.64	70	8.32	91	3.68
132	C3	8.61	150	3.73	98	7.48	45	4.97
133	F13	8.6	118	5	85	7.88	43	5.01
134	C71	8.3	155	3.34	131	5.89	N/A	
135	F69	8.24	172	-2.75	160	-0.31	107	2.84
136	C1	8.24	73	6.39	42	9.28	N/A	
137	C37	8.24	115	5.06	N/A		N/A	
138	E81	8.12	138	4.07	140	5.61	103	2.93
139	E47	8.11	167	1.95	156	3.69	93	3.62
140	C16	8.08	144	4	97	7.5	N/A	
141	C84	8.06	128	4.59	112	6.88	32	5.47
142	C49	7.99	126	4.66	147	4.66	96	3.39
143	C62	7.85	60	6.76	67	8.38	N/A	
144	C23	7.84	129	4.57	108	7.15	70	4.35
145	E50	7.72	121	4.95	158	3.64	112	2.19
146	E58	7.67	108	5.31	84	7.93	85	3.92
147	F78	7.49	82	6.03	65	8.59	21	5.94
148	E22	7.44	49	7.08	45	9.1	18	6
149	C80	7.42	158	3.15	127	6.33	109	2.42
150	C5	7.42	85	5.99	126	6.36	42	5.03

ALL ENDOWMENT POOLS
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	1 YEAR RETURN	#	3 YEAR RETURN	#	5 YEAR RETURN	#	10 YEAR RETURN
151	C92	7.42%	72	6.39%	105	7.25%	N/A	%
152	C79	7.41	93	5.83	92	7.68	N/A	
153	C69	7.38	86	5.99	86	7.86	N/A	
154	C89	7.17	104	5.5	69	8.33	N/A	
155	C47	7.07	153	3.48	62	8.62	46	4.96
156	C85	6.82	22	8.24	11	11.89	N/A	
157	SALOMON	6.75	63	6.62	55	8.85	N/A	
158	LEH-KUHN	6.63	52	7.02	33	9.67	N/A	
159	F35	6.47	143	4.02	151	4.23	101	3.01
160	C21	6.23	169	1.46	154	3.93	113	2.03
161	C32	6.2	116	5	99	7.39	47	4.95
162	C70	6.18	76	6.33	110	7	N/A	
163	C38	6.15	37	7.59	53	8.94	27	5.63
164	F84	5.88	136	4.22	139	5.62	N/A	
165	F82	5.86	74	6.37	117	6.8	N/A	
166	F60	5.52	132	4.38	82	7.93	72	4.24
167	E83	5.5	67	6.47	137	5.67	N/A	
168	C46	5.12	106	5.47	138	5.67	N/A	
169	E87	4.93	19	8.72	75	8.16	37	5.36
170	F15	4.92	166	2.43	157	3.67	99	3.17
171	C76	4.69	154	3.39	129	5.96	13	6.51
172	E88	4.57	42	7.33	63	8.61	N/A	
173	F32	4.52	34	7.67	40	9.37	59	4.6
174	F86	3.84	N/A		N/A		N/A	
175	F30	3.09	165	2.53	153	4.06	97	3.23
176	C94	0.12	140	4.04	145	5.19	N/A	
TOTAL POOLS (AVERAGE RETURN)								
169		10.80%	166	6.00%	154	8.02%	111	4.77%

POOLS WITH A
TOTAL RETURN INVESTMENT OBJECTIVE
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	1 YEAR RETURN	#	3 YEAR RETURN	#	5 YEAR RETURN	#	10 YEAR RETURN
1	C35	19.39%	1	12.87%	4	12.43%	N/A	%
2	F19	19.22	6	9.62	14	10.28	21	4.52
3	F51	18.1	16	8.04	30	8.13	6	5.98
4	F5	17.95	10	8.74	12	10.45	13	5.39
5	C63	17.32	3	10.66	10	11.39	9	5.5
6	C77	17.08	14	8.17	5	12.43	3	7.5
7	F54	16.93	5	10.38	11	10.86	19	4.56
8	COM-FDFC	16.92	4	10.42	8	11.64	N/A	
9	E45	16.91	11	8.72	7	11.75	10	5.47
10	F75	15.83	15	8.08	1	17.24	4	6.8
11	C48	14.84	41	5	42	6.64	40	2.54
12	F11	14.68	18	7.87	21	8.96	12	5.46
13	C15	13.76	19	7.8	15	9.89	32	3.79
14	C66	13.68	20	7.34	33	7.95	N/A	
15	SP-IND	13.64	53	3.67	35	7.59	24	4.36
16	F54	13.58	8	9.34	23	8.77	N/A	
17	SP500	13.47	45	4.4	26	8.31	22	4.49
18	F49	13.43	13	8.18	18	9.13	36	3.16
19	F63	13	32	5.98	50	5.83	17	4.75
20	C58	12.97	46	4.31	52	5.41	30	3.92
21	F4	12.76	39	5.25	45	6.18	27	4.09
22	C24	12.71	9	8.94	6	12.25	N/A	
23	C16	12.68	2	12.26	2	13.59	1	8.38
24	F9	12.63	59	1.72	57	1.98	41	2.27
25	F42	12.36	38	5.28	N/A		N/A	
26	C13	12.06	17	7.98	13	10.43	2	8.16
27	E66	12.02	48	4.02	54	4.26	N/A	
28	F71	11.54	35	5.67	27	8.2	23	4.4
29	E18	11.44	55	3.31	51	5.83	25	4.18
30	F3	11.36	30	6.45	36	7.53	7	5.52
31	E16	11.35	22	7.05	31	8.03	18	4.7
32	C34	11.09	36	5.63	49	5.84	N/A	
33	E96	10.68	21	7.08	N/A		N/A	
34	C2	10.66	42	4.93	24	8.67	8	5.52
35	E62	10.57	27	6.63	34	7.8	N/A	
36	C75	10.56	31	6.19	17	9.55	26	4.17
37	C26	10.52	29	6.54	20	8.99	14	5.23
38	C20	10.52	57	2.93	56	3.8	36	3.47
39	C31	10.51	43	4.78	29	8.17	15	5.1
40	E10	10.49	52	3.75	53	5.22	35	3.52
41	C19	10.47	37	5.49	38	7.36	16	4.78
42	C93	10.4	58	2.56	N/A		N/A	
43	F27	10.34	50	3.91	44	6.42	20	4.55
44	C42	10.22	47	4.26	48	5.87	34	3.63
45	E68	9.97	33	5.88	39	7.29	39	2.9
46	E24	9.8	12	8.54	9	11.49	N/A	
47	F93	9.78	56	3.02	N/A		N/A	
48	E40	9.78	51	3.88	28	8.19	33	3.7
49	C44	9.72	7	9.56	3	12.79	31	3.82
50	C43	9.68	24	6.89	32	7.95	N/A	

POOLS WITH A
TOTAL RETURN INVESTMENT OBJECTIVE
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	1 YEAR RETURN	#	3 YEAR RETURN	#	5 YEAR RETURN	#	10 YEAR RETURN
51	C39	9.64%	44	4.52%	43	6.49%	11	5.46%
52	F7	9.21	60	1.37	55	4.26	N/A	
53	D-JONES	9.05	61	-0.62	47	5.95	29	4.03
54	C59	8.85	40	5.13	40	7.22	N/A	
55	F1	8.8	34	5.85	41	6.94	37	3.2
56	F25	8.76	25	6.85	19	9.08	28	4.07
57	COM-FORD	8.72	N/A		N/A		N/A	
58	C16	8.08	49	4	37	7.5	N/A	
59	C62	7.85	26	6.76	25	8.38	N/A	
60	SALOMON	6.75	28	6.62	22	8.85	N/A	
61	LEH-KUHN	6.63	23	7.02	16	9.67	N/A	
62	C76	4.69	54	3.39	46	5.96	5	6.51
63	F86	3.84	N/A		N/A		N/A	
TOTAL POOLS (AVERAGE RETURN)								
56		11.91%	55	6.35%	51	8.37%	38	4.75%

POOLS WITH A
BALANCED OR INCOME INVESTMENT OBJECTIVE
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	1 YEAR RETURN	#	3 YEAR RETURN	#	5 YEAR RETURN	#	10 YEAR RETURN
1	F94	25.52 %	18	7.61%	N/A	%	N/A	%
2	C54	24.54	1	12.59	9	11.03	N/A	
3	E26	23.51	4	9.7	17	9.9	53	4.12
4	C40	21.51	56	6.03	1	13.36	2	7.87
5	C74	20.35	2	10.45	26	9.31	1	9.68
6	F43	18.66	27	7.12	7	11.16	N/A	
7	E12	18.5	68	5.64	N/A		N/A	
8	C25	17.42	44	6.4	21	9.63	9	6.46
9	COM-FDFC	16.92	3	10.42	6	11.64	N/A	
10	F37	16.29	33	6.91	37	8.82	N/A	
11	F34	15.97	36	6.77	77	6.87	55	4.04
12	F33	15.4	69	5.55	85	6.47	N/A	
13	F61	15.04	6	9.41	4	12.18	6	6.98
14	F2	14.39	28	7.11	51	8.14	52	4.16
15	F74	14.37	107	3.26	N/A		N/A	
16	F46	13.9	101	3.91	84	6.53	46	4.42
17	F28	13.88	12	7.84	65	7.56	45	4.42
18	SP-IND	13.64	103	3.67	64	7.59	47	4.36
19	E36	13.53	22	7.36	72	7.21	57	4.02
20	SP500	13.47	90	4.4	49	8.31	43	4.49
21	F80	13.3	7	9.3	15	10.15	39	4.69
22	F23	12.82	75	5.22	91	5.79	20	5.68
23	C4	12.78	29	7.09	10	10.91	N/A	
24	C72	12.67	16	7.67	8	11.14	3	7.76
25	C82	12.65	37	6.63	61	7.76	67	2.95
26	E77	12.54	25	7.15	74	7.09	N/A	
27	F44	12.29	104	3.6	83	6.54	49	4.35
28	F91	12.25	77	5.1	70	7.28	37	4.83
29	F31	12.18	N/A		N/A		N/A	
30	C56	12.1	14	7.79	25	9.37	22	5.54
31	E57	11.82	54	6.03	31	9.03	N/A	
32	C11	11.79	61	5.85	68	7.36	35	4.87
33	F85	11.76	42	6.44	45	8.43	N/A	
34	F38	11.72	21	7.46	14	10.2	16	5.94
35	F53	11.57	20	7.48	11	10.71	18	5.76
36	F29	11.44	24	7.29	33	8.94	73	2.25
37	F52	11.43	83	4.95	60	7.79	60	3.9
38	F21	11.29	63	5.78	82	6.79	38	4.8
39	F72	11.17	26	7.14	22	9.55	34	4.92
40	F20	11.02	81	4.97	38	8.77	29	4.97
41	F8	10.79	39	6.57	35	8.88	42	4.57
42	C60	10.76	34	6.89	28	9.18	11	6.11
43	C50	10.73	92	4.31	79	6.82	33	4.93
44	C67	10.66	13	7.8	32	8.99	N/A	
45	F55	10.61	109	2.82	99	4.99	76	1.52
46	C51	10.61	65	5.74	58	7.83	N/A	
47	C52	10.54	59	5.93	39	8.71	36	4.86
48	C55	10.4	17	7.66	18	9.8	5	7.04
49	E48	10.13	111	2.75	101	4.37	N/A	
50	C41	10.05	5	9.49	2	12.85	7	6.93

POOLS WITH A
BALANCED OR INCOME INVESTMENT OBJECTIVE
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	1 YEAR RETURN	#	3 YEAR RETURN	#	5 YEAR RETURN	#	10 YEAR RETURN
51	E95	9.98%	73	5.39%	54	7.93%	51	4.22%
52	E6	9.97	110	2.81	80	6.81	25	5.08
53	C91	9.73	52	6.04	46	8.36	N/A	
54	F90	9.72	43	6.4	78	6.83	N/A	
55	E14	9.72	96	4.06	30	9.09	58	3.97
56	C65	9.67	35	6.89	13	10.24	10	6.3
57	F67	9.59	48	6.35	20	9.66	19	5.69
58	C27	9.56	8	9.1	3	12.73	4	7.22
59	C36	9.46	100	3.92	N/A		N/A	
60	C61	9.4	N/A		N/A		N/A	
61	C86	9.31	10	8.39	23	9.39	12	6.04
62	C10	9.24	64	5.75	N/A		N/A	
63	C78	9.24	85	4.85	103	4.18	70	2.85
64	F73	9.2	40	6.53	59	7.82	44	4.44
65	C30	9.2	76	5.17	16	9.9	40	4.64
66	C64	9.14	51	6.1	40	8.62	17	5.85
67	F17	9.1	70	5.53	43	8.6	14	5.99
68	F76	9.08	94	4.14	96	5.59	N/A	
69	D-JONES	9.05	116	-0.62	89	5.95	56	4.03
70	C9	9	84	4.86	69	7.28	26	5.04
71	F92	8.91	50	6.12	12	10.25	8	6.55
72	E56	8.86	98	4.03	97	5.45	54	4.1
73	E89	8.85	87	4.6	63	7.65	N/A	
74	C17	8.81	55	6.03	86	6.44	69	2.91
75	C33	8.8	66	5.69	N/A		N/A	
76	C88	8.76	60	5.91	52	7.95	N/A	
77	C73	8.72	32	6.94	N/A		N/A	
78	COM-FDRD	8.72	N/A		N/A		N/A	
79	F59	8.65	67	5.64	48	8.32	61	3.66
80	C3	8.61	102	3.73	66	7.48	30	4.97
81	F13	8.6	80	5	56	7.88	28	5.01
82	C71	8.3	106	3.34	90	5.89	N/A	
83	C1	8.24	46	6.39	27	9.28	N/A	
84	F69	8.24	117	-2.75	109	-0.31	71	2.84
85	C37	8.24	78	5.06	N/A		N/A	
86	F81	8.12	95	4.07	95	5.61	68	2.93
87	F47	8.11	114	1.95	106	3.69	62	3.62
88	C84	8.06	88	4.59	76	6.88	23	5.47
89	C49	7.99	86	4.66	100	4.66	63	3.39
90	C23	7.84	89	4.57	73	7.15	48	4.35
91	E50	7.72	82	4.95	108	3.64	74	2.19
92	F58	7.67	74	5.31	53	7.93	59	3.92
93	F78	7.49	53	6.03	44	8.59	15	5.94
94	F22	7.44	30	7.08	29	9.1	13	6
95	C92	7.42	45	6.39	71	7.25	N/A	
96	C80	7.42	108	3.15	88	6.33	72	2.42
97	C5	7.42	57	5.99	87	6.36	27	5.03
98	C79	7.41	62	5.83	62	7.68	N/A	
99	C69	7.38	58	5.99	57	7.86	N/A	
100	C89	7.17	71	5.5	47	8.33	N/A	

POOLS WITH A
BALANCED OR INCOME INVESTMENT OBJECTIVE
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	1 YEAR RETURN	#	3 YEAR RETURN	#	5 YEAR RETURN	#	10 YEAR RETURN
101	C47	7.07%	105	3.48 %	41	8.62 %	31	4.96%
102	C85	6.82	11	8.24	5	11.89	N/A	
103	SALOMON	6.75	38	6.62	36	8.85	N/A	
104	LEH-KUHN	6.63	31	7.02	19	9.67	N/A	
105	F35	6.47	99	4.02	102	4.23	66	3.01
106	C21	6.23	115	1.46	105	3.93	75	2.03
107	C32	6.2	79	5	67	7.39	32	4.95
108	C70	6.18	49	6.33	75	7	N/A	
109	C38	6.15	19	7.59	34	8.94	21	5.63
110	F84	5.88	93	4.22	94	5.62	N/A	
111	F82	5.86	47	6.37	81	6.8	N/A	
112	F60	5.52	91	4.38	55	7.93	50	4.24
113	F83	5.5	41	6.47	92	5.67	N/A	
114	C46	5.12	72	5.47	93	5.67	N/A	
115	F87	4.93	9	8.72	50	8.16	24	5.36
116	E15	4.92	113	2.43	107	3.67	65	3.17
117	F88	4.57	23	7.33	42	8.61	N/A	
118	F32	4.52	15	7.67	24	9.37	41	4.6
119	F30	3.09	112	2.53	104	4.06	64	3.23
120	C94	0.12	97	4.04	98	5.19	N/A	
TOTAL POOLS (AVERAGE RETURN)								
113		10.25 %	111	5.82 %	103	7.84 %	73	4.78 %

INVESTMENT POOLS $10 - $50 MILLION
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	1 YEAR RETURN	#	3 YEAR RETURN	#	5 YEAR RETURN	#	10 YEAR RETURN
1	E26	23.51%	7	9.7 %	16	9.9 %	34	4.12 %
2	C74	20.35	4	10.45	20	9.31	1	9.68
3	C35	19.39	1	12.87	4	12.43	N/A	
4	E19	19.22	8	9.62	13	10.28	27	4.52
5	E43	18.66	20	7.12	9	11.16	N/A	
6	E51	18.1	15	8.04	39	8.13	8	5.98
7	C63	17.32	3	10.66	8	11.39	15	5.5
8	E54	16.93	6	10.38	11	10.86	26	4.56
9	COM-EDEC	16.92	5	10.42	6	11.64	N/A	
10	E37	16.29	26	6.91	28	8.82	N/A	
11	E75	15.83	14	8.08	1	17.24	4	6.8
12	C48	14.84	48	5	56	6.64	51	2.54
13	E2	14.39	21	7.11	38	8.14	33	4.16
14	C66	13.68	19	7.34	41	7.95	N/A	
15	SP-IND	13.64	68	3.67	47	7.59	30	4.36
16	SP500	13.47	57	4.4	36	8.31	28	4.49
17	E49	13.43	13	8.18	22	9.13	47	3.16
18	E80	13.3	10	9.3	15	10.15	24	4.69
19	C58	12.97	59	4.31	65	5.41	40	3.92
20	C4	12.78	22	7.09	10	10.91	N/A	
21	E4	12.76	46	5.25	59	6.18	36	4.09
22	C24	12.71	11	8.94	5	12.25	N/A	
23	C18	12.68	2	12.26	2	13.59	2	8.38
24	E42	12.36	45	5.28	N/A		N/A	
25	E66	12.02	64	4.02	70	4.26	N/A	
26	E85	11.76	31	6.44	33	8.43	N/A	
27	E53	11.57	18	7.48	12	10.71	10	5.76
28	E71	11.54	39	5.67	37	8.2	29	4.4
29	E52	11.43	50	4.95	44	7.79	41	3.9
30	E3	11.36	30	6.45	48	7.53	13	5 52
31	E16	11.35	24	7.05	40	8.03	23	4.7
32	C34	11.09	41	5.63	63	5.84	N/A	
33	E20	11.02	49	4.97	29	8.77	19	4.97
34	C2	10.66	52	4.93	30	8.67	14	5.52
35	E55	10.61	73	2.82	68	4.99	54	1.52
36	E10	10.49	66	3.75	66	5.22	44	3.52
37	C19	10.47	43	5.49	52	7.36	22	4.78
38	C93	10.4	74	2.56	N/A		N/A	
39	C41	10.05	9	9.49	3	12.85	3	6.93
40	E95	9.98	44	5.39	43	7.93	32	4.22
41	E68	9.97	37	5.88	53	7.29	50	2.9
42	E24	9.8	12	8.54	7	11.49	N/A	
43	E93	9.78	72	3.02	N/A		N/A	
44	E14	9.72	60	4.06	24	9.09	39	3.97
45	C65	9.67	27	6.89	14	10.24	6	6.3
46	C39	9.64	56	4.52	57	6.49	17	5.46
47	E67	9.59	33	6.35	18	9.66	11	5.69
48	D-JONES	9.05	78	-0.62	61	5.95	38	4.03
49	E56	8.86	62	4.03	64	5.45	35	4.1
50	E89	8.85	54	4.6	46	7.65	N/A	

INVESTMENT POOLS OVER $50 MILLION
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	1 YEAR RETURN	#	3 YEAR RETURN	#	5 YEAR RETURN	#	10 YEAR RETURN
1	C54	24.54 %	1	12.59 %	7	11.03 %	N/A	%
2	F5	17.95	5	8.74	8	10.45	13	5.39
3	C25	17.42	26	6.4	13	9.63	6	6.46
4	C77	17.08	7	8.17	2	12.43	2	7.5
5	COM-FDEC	16.92	2	10.42	5	11.64	N/A	
6	F45	16.91	6	8.72	4	11.75	11	5.47
7	F34	15.97	21	6.77	33	6.67	28	4.04
8	F33	15.4	32	5.55	38	6.47	N/A	
9	F61	15.04	3	9.41	3	12.18	5	6.98
10	F11	14.68	8	7.87	18	8.96	12	5.46
11	F46	13.9	39	3.91	37	6.53	25	4.42
12	F28	13.88	9	7.84	29	7.56	24	4.42
13	C15	13.76	10	7.8	10	9.89	31	3.79
14	SP-IND	13.64	41	3.67	28	7.59	26	4.36
15	F36	13.53	15	7.36	31	7.21	30	4.02
16	SP500	13.47	36	4.4	23	8.31	22	4.49
17	F63	13	29	5.98	43	5.83	19	4.75
18	C72	12.67	12	7.67	6	11.14	1	7.76
19	C82	12.65	22	6.63	27	7.76	36	2.95
20	F9	12.63	45	1.72	45	1.98	38	2.27
21	F31	12.18	N/A		N/A		N/A	
22	C56	12.1	11	7.79	15	9.37	10	5.54
23	F57	11.82	28	6.03	17	9.03	N/A	
24	F38	11.72	14	7.46	9	10.2	9	5.94
25	F18	11.44	42	3.31	42	5.83	27	4.18
26	F29	11.44	16	7.29	19	8.94	39	2.25
27	F21	11.29	31	5.78	36	6.79	18	4.8
28	F72	11.17	17	7.14	14	9.55	17	4.92
29	F8	10.79	24	6.57	20	8.88	20	4.57
30	C60	10.76	20	6.89	16	9.18	7	6.11
31	F96	10.68	18	7.08	N/A		N/A	
32	C31	10.51	35	4.78	25	8.17	14	5.1
33	C55	10.4	13	7.66	11	9.8	4	7.04
34	F27	10.34	38	3.91	39	6.42	21	4.55
35	C42	10.22	37	4.26	41	5.87	33	3.63
36	F6	9.97	43	2.81	35	6.81	15	5.08
37	F40	9.78	40	3.88	24	8.19	32	3.7
38	F90	9.72	27	6.4	34	6.83	N/A	
39	C27	9.56	4	9.1	1	12.73	3	7.22
40	C61	9.4	N/A		N/A		N/A	
41	F73	9.2	25	6.53	26	7.82	23	4.44
42	F17	9.1	33	5.53	22	8.6	8	5.99
43	D-JONES	9.05	46	-0.62	40	5.95	29	4.03
44	C9	9	34	4.86	30	7.28	16	5.04
45	F1	8.8	30	5.85	32	6.94	35	3.2
46	COM-FDRD	8.72	N/A		N/A		N/A	
47	F69	8.24	47	-2.75	46	-0.31	37	2.84
48	SALOMON	6.75	23	6.62	21	8.85	N/A	
49	LEH-KUHN	6.63	19	7.02	12	9.67	N/A	
50	F30	3.09	44	2.53	44	4.06	34	3.23
TOTAL POOLS (AVERAGE RETURN)								
43		12.18 %	41	6.19 %	40	8.12 %	36	4.86%

INVESTMENT POOLS $10 - $50 MILLION
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	1 YEAR RETURN	#	3 YEAR RETURN	#	5 YEAR RETURN	#	10 YEAR RETURN
51	C17	8.81%	35	6.03%	58	6.44%	49	2.91%
52	E25	8.76	28	6.85	25	9.08	37	4.07
53	COM-FDBD	8.72	N/A		N/A		N/A	
54	E59	8.65	40	5.64	35	8.32	42	3.68
55	C3	8.61	67	3.73	50	7.48	18	4.97
56	C71	8.3	71	3.34	62	5.89	N/A	
57	C1	8.24	32	6.39	21	9.28	N/A	
58	F47	8.11	76	1.95	73	3.69	43	3.62
59	C16	8.08	65	4	49	7.5	N/A	
60	C84	8.06	55	4.59	55	6.88	16	5.47
61	C49	7.99	53	4.66	69	4.66	45	3.39
62	E50	7.72	51	4.95	75	3.64	52	2.19
63	F78	7.49	36	6.03	32	8.59	9	5.94
64	F22	7.44	23	7.08	23	9.1	7	6
65	C79	7.41	38	5.83	45	7.68	N/A	
66	C89	7.17	42	5.5	34	8.33	N/A	
67	C47	7.07	69	3.48	31	8.62	20	4.96
68	SALOMON	6.75	29	6.62	27	8.85	N/A	
69	LEH-KUHN	6.63	25	7.02	17	9.67	N/A	
70	E35	6.47	63	4.02	71	4.23	48	3.01
71	C21	6.23	77	1.46	72	3.93	53	2.03
72	C32	6.2	47	5	51	7.39	21	4.95
73	C70	6.18	34	6.33	54	7	N/A	
74	C38	6.15	17	7.59	26	6.94	12	5.63
75	F60	5.52	58	4.38	42	7.93	31	4.24
76	E15	4.92	75	2.43	74	3.67	46	3.17
77	C76	4.69	70	3.39	60	5.96	5	6.51
78	E32	4.52	16	7.67	19	9.37	25	4.6
79	F86	3.84	N/A		N/A		N/A	
80	C94	0.12	61	4.04	67	5.19	N/A	
TOTAL POOLS (AVERAGE RETURN)								
73		10.63%	72	6.04%	69	8.15%	51	4.66%

INVESTMENT POOLS UNDER $10 MILLION
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	1 YEAR RETURN	#	3 YEAR RETURN	#	5 YEAR RETURN	#	10 YEAR RETURN
1	E94	25.52%	9	7.61%	N/A	%	N/A	%
2	C40	21.51	26	6.03	1	13.36	2	7.87
3	E12	18.5	35	5.64	N/A		N/A	
4	COM-EDEC	16.92	1	10.42	4	11.64	N/A	
5	E74	14.37	54	3.26	N/A		N/A	
6	SP-IND	13.64	52	3.67	29	7.59	17	4.36
7	E64	13.58	3	9.34	14	8.77	N/A	
8	SP500	13.47	46	4.4	20	8.31	16	4.49
9	E23	12.82	38	5.22	42	5.79	6	5.68
10	E77	12.54	11	7.15	35	7.09	N/A	
11	E44	12.29	53	3.6	38	6.54	19	4.35
12	E91	12.25	41	5.1	31	7.28	14	4.83
13	C13	12.06	7	7.98	5	10.43	1	8.16
14	C11	11.79	31	5.85	30	7.36	12	4.87
15	C50	10.73	47	4.31	36	6.82	11	4.93
16	C67	10.66	8	7.8	11	8.99	N/A	
17	C51	10.61	33	5.74	27	7.83	N/A	
18	E62	10.57	16	6.63	28	7.8	N/A	
19	C75	10.56	22	6.19	9	9.55	20	4.17
20	C52	10.54	29	5.93	15	8.71	13	4.86
21	C26	10.52	18	6.54	12	8.99	8	5.23
22	C20	10.52	56	2.93	51	3.8	24	3.47
23	E48	10.13	57	2.75	48	4.37	N/A	
24	C91	9.73	25	6.04	19	8.36	N/A	
25	C44	9.72	2	9.56	2	12.79	23	3.82
26	C43	9.68	14	6.89	23	7.95	N/A	
27	C36	9.46	51	3.92	N/A		N/A	
28	C86	9.31	5	8.39	10	9.39	4	6.04
29	C78	9.24	44	4.85	50	4.18	26	2.85
30	C10	9.24	32	5.75	N/A		N/A	
31	E7	9.21	58	1.37	49	4.26	N/A	
32	C30	9.2	39	5.17	7	9.9	15	4.64
33	C64	9.14	24	6.1	16	8.62	5	5.85
34	E76	9.08	49	4.14	47	5.59	N/A	
35	D-JONES	9.05	59	-0.62	41	5.95	21	4.03
36	E92	8.91	23	6.12	6	10.25	3	6.55
37	C59	8.85	40	5.13	33	7.22	N/A	
38	C33	8.8	34	5.69	N/A		N/A	
39	C88	8.76	30	5.91	22	7.95	N/A	
40	C73	8.72	13	6.94	N/A		N/A	
41	COM-EDBD	8.72	N/A		N/A		N/A	
42	E13	8.6	43	5	25	7.88	10	5.01
43	C37	8.24	42	5.06	N/A		N/A	
44	E81	8.12	50	4.07	46	5.61	25	2.93
45	C62	7.85	15	6.76	18	8.38	N/A	
46	C23	7.84	45	4.57	34	7.15	18	4.35
47	E58	7.67	37	5.31	24	7.93	22	3.92
48	C92	7.42	20	6.39	32	7.25	N/A	
49	C80	7.42	55	3.15	40	6.33	27	2.42
50	C5	7.42	28	5.99	39	6.36	9	5.03

INVESTMENT POOLS UNDER $10 MILLION
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	1 YEAR RETURN	#	3 YEAR RETURN	#	5 YEAR RETURN	#	10 YEAR RETURN
51	C69	7.38%	27	5.99 %	26	7.86 %	N/A	%
52	C85	6.82	6	8.24	3	11.89	N/A	
53	SALOMON	6.75	17	6.62	13	8.85	N/A	
54	LEH-KUHN	6.63	12	7.02	8	9.67	N/A	
55	E84	5.88	48	4.22	45	5.62	N/A	
56	E82	5.86	21	6.37	37	6.8	N/A	
57	F83	5.5	19	6.47	44	5.67	N/A	
58	C46	5.12	36	5.47	43	5.67	N/A	
59	E87	4.93	4	8.72	21	8.16	7	5.36
60	E88	4.57	10	7.33	17	8.61	N/A	
TOTAL POOL (AVERAGE RETURN)								
53		9.92 %	53	5.79 %	45	7.71 %	24	4.88 %

EQUITY AND BOND ONLY PERFORMANCE COMPARISON
FOR THE ONE-YEAR PERIOD ENDING JUNE 30, 1979

	Code Name	Total Return
1	Equity 12	20.15%
2	Equity 15	19.32
3	Equity 4	19.24
4	Equity 5	18.5
5	COM-FDEQ	16.92
6	Equity 7	16.01
7	Equity 9	15.88
8	Equity 25	15.74
9	Equity 23	15.62
10	Equity 13	15.61
11	Equity 19	15.25
12	Equity 20	14.61
13	Equity 17	14.57
14	Equity 21	14.04
15	SP-IND	13.64
16	SP500	13.47
17	Equity 28	12.72
18	Equity 6	12.63
19	Equity 8	12.46
20	Equity 1	10.86
21	Equity 18	10.65
22	Equity 3	9.88
23	Equity 10	9.39
24	Equity 26	9.12
25	D-JONES	9.05
26	Equity 14	8.36
27	Equity 29	8.02
28	Equity 24	7.55
29	Equity 11	6.81
30	Equity 2	4.33
AVERAGE OF 26 Pools		12.97

	Code Name	Total Return
1	Bond 21	8.99%
2	COM-FDBD	8.72
3	Bond 5	7.82
4	Bond 9	7.70
5	Bond 18	7.69
6	Bond 8	7.52
7	Bond 20	7.34
8	Bond 4	7.11
9	Bond 16	7.11
10	SALMON	6.75
11	LEH-KUHN	6.63
12	Bond 12	6.31
13	Bond 2	5.54
14	Bond 15	5.12
15	Bond 6	4.82
16	Bond 1	4.71
17	Bond 14	1.71
AVERAGE OF 14 POOLS		6.39

EQUITY ONLY AND BOND ONLY PERFORMANCE COMPARISON
FOR THE THREE-YEAR PERIOD ENDING JUNE 30, 1979

	Code Name	Total Return
1	COM-FDEQ	10.42%
2	Equity 3	8.69
3	Equity 9	7.22
4	Equity 8	6.08
5	Equity 19	6.82
6	Equity 24	7.78
7	Equity 13	6.36
8	Equity 21	5.90
9	Equity 23	5.31
10	Equity 17	5.30
11	SP500	4.40
12	Equity 5	4.36
13	Equity 20	4.30
14	Equity 26	3.85
15	SP-IND	3.67
16	Equity 15	3.61
17	Equity 28	3.42
18	Equity 14	2.97
19	Equity 7	2.94
20	E1	2.92
21	E18	2.30
22	E29	2.27
23	E6	1.72
24	E11	1.33
25	E2	1.00
26	D-JONES	-0.62
AVERAGE OF 22 POOLS		4.38

	Code Name	Total Return
1	Bond 4	8.01%
2	Bond 16	7.59
3	Bond 18	7.54
4	Bond 21	7.31
5	Bond 5	7.14
6	LEH-KUNH	7.02
7	Bond 8	6.84
8	Bond 15	6.66
9	SALMON	6.62
10	Bond 20	6.42
11	Bond 9	6.30
12	Bond 12	6.11
13	Bond 6	6.10
14	Bond 14	4.76
15	Bond 1	2.41
AVERAGE OF 13 POOLS		6.40

EQUITY ONLY AND BOND ONLY PERFORMANCE COMPARISON
FOR THE FIVE-YEAR PERIOD ENDING JUNE 30, 1979

	Code Name	Total Return	Code Name	Total Return
1	E9	13.31%	1 LEH-KUHN	9.67%
2	COM-FDEQ	11.64	2 SALOMON	8.85
3	E3	11.60	3 Bond 4	8.77
4	E8	11.48	4 Bond 8	8.38
5	E13	10.69	5 Bond 6	8.12
6	E24	9.92	6 Bond 9	7.83
7	E19	9.88	7 Bond 20	7.80
8	E14	8.71	8 Bond 15	6.55
9	E20	8.63		
10	SP500	8.31	AVERAGE OF 6 POOLS	7.93
11	E11	7.72		
12	SP-IND	7.59		
13	E18	6.20		
14	D-JONES	5.95		
15	E7	5.88		
16	E15	5.62		
17	E28	5.43		
18	E5	5.22		
19	E6	1.98		
AVERAGE OF 15 POOLS		8.15		

ALL INVESTMENT POOLS
RANKING BY EFFICIENCY AND BETA
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	5 YEAR EFFICIENCY	#	10 YEAR EFFICIENCY	#	5 YEAR BETA	#	10 YEAR BETA
1	C35	1.25	N/A		127	0.32	N/A	
2	C41	1.23	9	0.04	99	0.45	78	0.68
3	F80	1.02	41	-0.1	123	0.33	28	0.84
4	F61	0.96	10	0.04	43	0.65	77	0.68
5	C85	0.96	N/A		116	0.39	N/A	
6	C24	0.93	N/A		45	0.65	N/A	
7	C86	0.93	30	-0.05	145	0.18	96	0.58
8	C27	0.92	8	0.06	101	0.45	104	0.52
9	C63	0.91	14	0	91	0.47	2	1.04
10	C18	0.89	3	0.15	138	0.25	42	0.79
11	C44	0.88	43	-0.1	98	0.45	67	0.71
12	F54	0.84	36	-0.08	111	0.42	19	0.88
13	F24	0.79	N/A		94	0.47	N/A	
14	C55	0.75	12	0.03	107	0.43	100	0.56
15	F75	0.72	7	0.09	2	1.6	1	1.09
16	C77	0.71	6	0.1	6	1.04	9	0.96
17	F53	0.7	27	-0.05	44	0.65	59	0.73
18	F45	0.66	25	-0.05	16	0.86	34	0.82
19	C72	0.65	5	0.11	31	0.71	105	0.52
20	C13	0.64	2	0.21	61	0.57	113	0.18
21	COM-EDEC	0.59	N/A		64	0.56	N/A	
22	C38	0.59	59	-0.13	151	0.09	108	0.49
23	F38	0.57	28	-0.05	60	0.59	85	0.66
24	C65	0.57	17	-0.02	52	0.61	88	0.66
25	C4	0.56	N/A		20	0.8	N/A	
26	F19	0.56	47	-0.1	54	0.6	26	0.85
27	C15	0.54	73	-0.16	51	0.61	44	0.78
28	C56	0.54	24	-0.05	108	0.42	31	0.83
29	F25	0.54	45	-0.1	117	0.39	15	0.91
30	C40	0.51	4	0.12	1	1.81	65	0.72
31	C54	0.5	N/A		104	0.44	N/A	
32	F72	0.5	55	-0.12	70	0.54	63	0.73
33	F5	0.5	15	-0.01	26	0.75	6	0.99
34	F43	0.49	N/A		4	1.13	N/A	
35	F67	0.46	33	-0.06	48	0.62	73	0.69
36	F32	0.45	64	-0.14	153	0.06	76	0.68
37	F92	0.44	13	0.01	34	0.7	72	0.7
38	C75	0.43	53	-0.12	37	0.68	20	0.87
39	F49	0.43	95	-0.19	103	0.44	33	0.82
40	C1	0.43	N/A		89	0.48	N/A	
41	C60	0.43	23	-0.04	85	0.5	84	0.66
42	C67	0.42	N/A		128	0.32	N/A	
43	LEH-KUHN	0.41	N/A		126	0.32	N/A	
44	C26	0.4	49	-0.11	69	0.54	82	0.67
45	C30	0.38	80	-0.17	15	0.86	106	0.52

ALL INVESTMENT POOLS
RANKING BY EFFICIENCY AND BETA
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	5 YEAR EFFICIENCY	#	10 YEAR EFFICIENCY	#	5 YEAR BETA	#	10 YEAR BETA
46	F29	0.37	101	-0.22	100	0.45	18	0.89
47	F22	0.37	21	-0.03	136	0.27	69	0.7
48	F8	0.36	61	-0.13	67	0.55	51	0.76
49	C74	0.35	1	0.36	115	0.4	114	-0.23
50	F26	0.35	40	-0.09	24	0.77	7	0.97
51	F11	0.34	20	-0.03	72	0.54	12	0.93
52	C25	0.32	19	-0.03	7	1.03	107	0.5
53	F57	0.32	N/A		30	0.72	N/A	
54	C52	0.3	82	-0.17	49	0.61	93	0.61
55	C64	0.27	32	-0.06	86	0.5	80	0.67
56	E78	0.27	22	-0.04	113	0.4	62	0.73
57	SALOMON	0.26	N/A		132	0.31	N/A	
58	F88	0.26	N/A		154	0.01	N/A	
59	E14	0.25	86	-0.18	9	0.95	61	0.73
60	F17	0.25	26	-0.05	57	0.59	91	0.64
61	C62	0.25	N/A		137	0.26	N/A	
62	F37	0.25	N/A		29	0.74	N/A	
63	F20	0.24	35	-0.08	18	0.84	22	0.86
64	E64	0.24	N/A		142	0.24	N/A	
65	C2	0.23	48	-0.11	19	0.81	109	0.48
66	F85	0.23	N/A		76	0.53	N/A	
67	F59	0.23	91	-0.19	81	0.52	53	0.75
68	C89	0.22	N/A		90	0.48	N/A	
69	C47	0.19	42	-0.1	13	0.89	43	0.79
70	F2	0.17	71	-0.15	75	0.53	46	0.78
71	F16	0.17	60	-0.13	119	0.38	60	0.73
72	F71	0.16	65	-0.14	41	0.66	49	0.77
73	C31	0.15	46	-0.1	27	0.75	58	0.74
74	SP500	0.15	34	-0.08	8	1	5	1
75	F40	0.14	90	-0.19	11	0.9	45	0.78
76	C69	0.13	N/A		131	0.31	N/A	
77	C66	0.13	N/A		112	0.41	N/A	
78	C43	0.13	N/A		130	0.31	N/A	
79	F51	0.13	18	-0.03	59	0.59	57	0.74
80	C91	0.12	N/A		38	0.68	N/A	
81	F87	0.12	58	-0.12	160	-0.32	110	0.47
82	F58	0.12	107	-0.27	97	0.46	102	0.54
83	F95	0.12	68	-0.15	55	0.6	35	0.81
84	C88	0.12	N/A		96	0.47	N/A	
85	F73	0.12	79	-0.17	133	0.3	74	0.69
86	F60	0.11	69	-0.15	73	0.54	56	0.75
87	E62	0.11	N/A		118	0.39	N/A	
88	C51	0.11	N/A		78	0.53	N/A	
89	F13	0.1	93	-0.19	56	0.59	103	0.52
90	C82	0.09	85	-0.18	93	0.47	10	0.94
91	E52	0.08	81	-0.17	25	0.76	48	0.77
92	C79	0.07	N/A		124	0.33	N/A	
93	E89	0.05	N/A		47	0.64	N/A	
94	SP-IND	0.05	38	-0.09	5	1.04	4	1
95	F28	0.03	100	-0.22	125	0.33	98	0.57

ALL INVESTMENT POOLS
RANKING BY EFFICIENCY AND BETA
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	5 YEAR EFFICIENCY	#	10 YEAR EFFICIENCY	#	5 YEAR BETA	#	10 YEAR BETA
96	C16	0.02	N/A		32	0.7	N/A	
97	F3	0.02	39	-0.09	105	0.43	87	0.66
98	C3	0.02	63	-0.14	23	0.77	90	0.65
99	C32	0	84	-0.18	121	0.36	101	0.55
100	C19	-0.01	87	-0.18	71	0.54	94	0.6
101	C11	-0.02	50	-0.11	79	0.53	55	0.75
102	F91	-0.02	37	-0.08	40	0.68	17	0.89
103	C9	-0.04	72	-0.16	68	0.55	92	0.61
104	F68	-0.04	83	-0.17	106	0.43	8	0.97
105	C59	-0.05	N/A		83	0.51	N/A	
106	F36	-0.06	70	-0.15	122	0.34	41	0.79
107	C23	-0.07	105	-0.24	82	0.51	97	0.57
108	F6	-0.07	51	-0.11	10	0.92	75	0.69
109	F77	-0.08	N/A		134	0.29	N/A	
110	F34	-0.09	99	-0.22	87	0.5	95	0.59
111	F44	-0.09	44	-0.1	12	0.9	14	0.91
112	C92	-0.09	N/A		149	0.15	N/A	
113	D-JONES	-0.11	67	-0.15	3	1.37	29	0.83
114	C48	-0.11	103	-0.23	28	0.74	23	0.86
115	F46	-0.12	54	-0.12	14	0.86	25	0.85
116	C50	-0.12	66	-0.14	36	0.68	81	0.67
117	F33	-0.13	N/A		39	0.68	N/A	
118	C84	-0.13	16	-0.02	84	0.51	3	1.01
119	F21	-0.18	57	-0.12	109	0.42	68	0.71
120	F27	-0.18	56	-0.12	33	0.7	37	0.8
121	F90	-0.2	N/A		141	0.24	N/A	
122	C70	-0.2	N/A		152	0.06	N/A	
123	C80	-0.22	111	-0.33	42	0.66	71	0.7
124	F1	-0.22	97	-0.2	135	0.29	38	0.8
125	C39	-0.25	29	-0.05	80	0.53	40	0.79
126	F18	-0.26	62	-0.14	22	0.77	30	0.83
127	F82	-0.28	N/A		155	0.01	N/A	
128	C71	-0.28	N/A		46	0.64	N/A	
129	F4	-0.28	75	-0.17	74	0.54	54	0.75
130	F23	-0.3	31	-0.06	95	0.47	79	0.67
131	F63	-0.39	52	-0.12	120	0.37	66	0.72
132	C42	-0.4	94	-0.19	77	0.53	39	0.8
133	C94	-0.4	N/A		158	-0.06	N/A	
134	C58	-0.41	78	-0.17	50	0.61	47	0.78
135	F84	-0.42	N/A		139	0.25	N/A	
136	C34	-0.44	N/A		129	0.31	N/A	
137	F55	-0.44	113	-0.38	35	0.69	83	0.66
138	C76	-0.45	11	0.04	114	0.4	16	0.9
139	F15	-0.48	104	-0.24	140	0.24	70	0.7
140	F81	-0.48	89	-0.19	110	0.42	13	0.93

ALL INVESTMENT POOLS
RANKING BY EFFICIENCY AND BETA
FOR THE PERIOD ENDING JUNE 30, 1979

#	CODE NAME	5 YEAR EFFICIENCY	#	10 YEAR EFFICIENCY	#	5 YEAR BETA	#	10 YEAR BETA
141	F10	-0.52	76	-0.17	63	0.56	21	0.86
142	F7	-0.53	N/A		21	0.78	N/A	
143	F76	-0.53	N/A		92	0.47	N/A	
144	C17	-0.57	108	-0.3	144	0.22	89	0.65
145	F9	-0.6	74	-0.16	65	0.55	11	0.94
146	F66	-0.61	N/A		88	0.49	N/A	
147	C20	-0.64	109	-0.32	62	0.57	99	0.56
148	D83	-0.64	N/A		159	-0.16	N/A	
149	F56	-0.64	88	-0.18	102	0.45	64	0.73
150	C46	-0.66	N/A		156	-0.01	N/A	
151	F48	-0.68	N/A		53	0.61	N/A	
152	C49	-0.7	106	-0.26	147	0.16	66	0.66
153	C21	-0.81	110	-0.33	58	0.59	52	0.76
154	C5	-0.83	112	-0.35	150	0.12	112	0.31
155	F47	-0.9	96	-0.2	66	0.55	50	0.77
156	F69	-0.94	77	-0.17	17	0.85	32	0.82
157	E50	-0.97	102	-0.23	157	-0.04	27	0.84
158	F30	-1.14	92	-0.19	143	0.23	24	0.85
159	C78	-1.18	114	-0.45	146	0.16	111	0.43
160	E35	-1.45	98	-0.22	146	0.16	36	0.81
TOTAL POOL (AVERAGE FIGURES)								
154		.09%	111	-0.12%	154	0.51%	111	0.72%

EXHIBIT IV

INSTITUTIONS WHICH APPLY TOTAL RETURN FOR BUDGETING PURPOSES

Institution	1978-79 Spending Rate Formula	Spending Rate Formula Change From Prior Year
The Academy of the New Church	4½% increase in income over the previous year. If not earned taken from appreciation.	No change
Alfred University	6% of 3 year moving average of market value.	Not on T/R last year
Berea College	Increase spending over prior year by 5%	Dropped 4.6% of 3-year moving average, lagged 1 year
Boston University	5% based on a 5-year moving moving average	No change
Bryn Mawr College	5% of a three year moving average	All income earned on bonds and mortgage. Also an amount equivalent to 5% of the average market value of common stock over the last 5 years.
California Institute of Technology	5% of market value of the pooled endowment portfolio averaged over a prior three-year period.	No change
Carleton College	6.0% of the 5-year average market value of endowment assets computed quarterly set back 1 year.	Rate increase to 6.0% from 5.5%
Carnegie-Mellon University	Not directly-but dollar placed on total budget support from endowment	No change
Carroll University	6% of the average market values of the previous 3 years after adjusting for subsequent principal additions or withdrawals	No change
Clark University	5% of a 20-quarter moving average	3 year to 5 year base

College of Wooster	6% of 12-quarter average market value of total return portfolios	Change 5.6% to 6.0% in 1977
Cooper Union	Assumption of a longer term combined total return of 9% and use of 4% for operations.	No change
Cornell College	5.5% of 6/30 market value	From 5% to 5.5%
Dartmouth College	5.0% of a 3-yr. quarterly average of market value and net additions, set back one year.	Spend a specific amount increased by Trustee vote over prior year. 4.9% of formula raised to 5% in 1978-79
Doane College	5% of the average market on June 30 of the last 3 years with a minimum guarantee	No change
Duke University	Spending rate tied to a formula, with 4% of the market objective added to current funds quasi income. if income insufficient the the balance taken from realized gain.	No change
Franklin and Marshall College	.0525 per share	.05 per share in 1976-77
John Hopkins University	We believe it is necessary to budget an absolute amount that is not likely to be reduced in future years.	No change
Kenyon College	5% of market value calculated at beginning of fiscal year	No change
Marquette University	We withdraw an amount equal to 5% of a 3-year moving average of the total market value at June 30 for the latest 3 fiscal years plus current year additions on a time weighted basis	No change
Occidental College	5% of 3 year moving average	No change
Ohio Wesleyan University	N/A	N/A

Princeton University	6% increase in net income per unit	No change
Reed College	5% of 13-quarter average moving unit value	No change
Rhode Island School of Design	5% of moving 3-year market value lagged 1 year	No change
Rochester Institute of Technology	5% of a 5-year moving average	No change
Smith College	5% of the average market value of the 12 quarters preceeding the start of the fiscal	No change
Spelman College	5% of the average value of the endowment over 12 quarters, but a minimum contribution	No change
State University of New York at Binghamton	N/A	No change
Syracuse University	N/A	No change
Teachers College-Columbia University	N/A	No change
University of Chicago	5.0% of moving average market values of 6 of the last 10 years (adj. for gifts) ending prior to the start of the fiscal year with 2 highest and the 2 lowest year excluded from the average.	No change
University of Maryland	Lesser of dividend and interest received on 5% of 3 years rolling market value	First year on total return
University of Rochester	5% of market value average of previous 5 years	No change
University of Wisconsin	N/A	No change
Wesleyan University	Board approves a dollar reliance figure for support of operations and capital expenditures.	No change
Williams College	Increase amount spendable by 6% over prior year.	No change
Yale University	4.5% of a five-year moving average.	No change

EXHIBIT V

INDEX OF INVESTMENT MANAGERS (1)

Institution		Investment Managers
Albion College		Trust Dept Nat'l Bank Detroit (S,B) Stein, Roe & Granham (S,B)
Alfred University	*	BEA Associates, Inc. (S,B) Reich & Tang, Inc. (S,B) Howe & Rusling (S,B)
Allegheny College		Standish, Ayer & Wood, Inc. (S,B)
Alma College (2)		MacKay-Shields Corp. (S)
The American University	*	American Security Bank (S,B)
Amherst College	*	Massachusetts Financial Services (B) Miller, Anderson & Sherrerd (S) Grantham, Mayo, Van Otterloo & Co. (S)
Arizona State University		Northern Trust Co of Arizona (S,B)
Baldwin-Wallace College		Internally Managed
Barnard College		Internally Managed Alliance Capital Mamagement Corp. (S,B)
Baylor College of Medicine		Internally Managed Baptist Fdn of Texas (S,B) Fayez Sarofim & Co. (S,B)
Berea College	*	Morgan Guaranty Trust (S,B) David L. Babson & Co. (S,B) Century Capital Associates (S,B)
Boston University		Internally Managed State Street Bank & Trust (S,B)
Brandeis University		Brundage, Story & Rose (S,B) New Court Capital Management (S,B) Julian Lerner (S,B)
Brown University	*	Putnam Advisory Co. Inc. (S,B) Morgan Guaranty Trust Co. (S,B)
Bryn Mawr College	*	David L. Babson (S,B) J&W Seligman (S,B)
Bucknell University	*	Internally Managed
California Inst of Tech.	*	Fayez Sarofim (S,B) Boston Co. of Southern California (S,B)

*The Common Fund

Carleton College	*	Northwestern National Bank of Minneapolis (S,B) Alliance Capital Management (S,B) Endowment Management & Research (S,B) The St. Paul Companies (S,B) Essex Investment Management Company (S,B)
Carnegie-Mellon University		Capital Guardian Trust Co. (S) Delaware Investment Advisors, Inc. (S) F. Eberstadt & Co. Inc. (S) Pittsburgh National Bank (S) Mellon Bank (S,B) Fischer, Francis, Trees & Watts Inc. (B)
Carroll College	*	Marshall & Ilsey Bank (S,B) Bank of New York (S,B) First Nat'l Bank - Minneapolis (S,B)
Case Western Reserve University		Central National Bank - Cleveland (S,B) American Trust (S,B) National City Bank of Cleveland (S,B)
Clark University		New Court Capital Management Inc. (S,B) Essex Investment Management (S,B)
Colby College	*	David L. Babson, Inc. (S,B)
College of Wooster		Woodbyne Corporation (S,B)
Colorado College		John W. Bristol & Co., Inc. (S,B)
Columbia University		Internally Managed
Teachers College-Columbia University		Fiduciary Trust & Company (S) Morgan Stanley (S) Connecticut Bank & Trust (B,S) Scudder, Stevens & Clark (B)
Cooper Union		Miller,Anderson & Sherrerd (S,B) Cooke & Bieler (S,B) United State Trust (S,B)
Cornell College		Fayez Sarofim & Company (S,B)
Cornell University		Internally Managed
Dartmouth College	*	State Street Research & Management (B) Delaware Investment Advisers (S) Pioneering Management Corp. (S) T. Rowe Price (S)

*The Common Fund

Denison University		American Trust Company (S,B) National City Bank (S,B)
Dickinson College	*	American Bank & Trust Co. (S,B)
Doane College		Hartford National Bank (S,B) National Bank of Commerce (S,B) First National Bank (S,B)
Drake University		Harriss Trust & Savings Bank - Chicago (S,B) Iowa Des Moines National Bank (S,B)
Drew University		Smith Barney, Harris Upham & Co. (S,B) J & W Seligman (S,B)
Duke University		T. Rowe Price (S) Paine Webber Mitchell Hutchins (S,B) Wachovia Bank Trust Dept. (B)
Eastern Michigan University	*	Ann Arbor Trust Company
Franklin and Marshall College		Internally Managed
Georgetown University	*	Chase Investors (S,B) Fayes Sarofim & Co. (S,B) Riggs National Bank (S,B)
George Washington University		David L. Babson & Co. (S,B)
Hamilton College		Internally Managed
Hampton Institute	*	Smith Barney Harris Upham & Co., Inc. (S,B)
Harvard University	*	Internally Managed Brown Brothers Harriman (B) Scudder Stevens & Clark (B) F. Eberstadt Corp. (S)
Hendrix College	*	Scudder Stevens & Clark (S,B)
Hobart and William Smith Colleges		Security Corp. (S,B)
Hope College		ISI Corp. (S,B) First Michigan Bank & Trust (B)
Indiana University	*	Indiana National Bank (S,B) American Fletcher National Bank (S,B) Merchants National Bank (S,B)
Johns Hopkins University	*	Miller, Anderson & Sherrerd (S,B) Weiss Peck & Greer (S)
Kenyon College		Woodbyne Corp. (S,B) Cleveland Trust Company (S,B)
Lafayette College	*	Schroeder, Naess & Thomas (S,B) Thorndike, Doran, Paine & Lewis (S,B)
Lehigh University	*	Internally Managed
McGill University		Royal Trust Company (S,B)

*The Common Fund

Marquette University		Heritage Investment Advisors Inc. (S,B) Marshall & Ilsley Bank (S,B)
Massachusetts Inst. of Tech.	*	Thorndike, Doran, Paine & Lewis, Inc. (S,B)
Mercer University	*	Internally Managed
Michigan State University	*	Scudder, Stevens & Clark (S,B) Detroit Bank & Trust Co. (S,B)
Middlebury College	*	Beck, Mack & Oliver (S,B) David L. Babson and Co., Inc. (S) Stralem & Co., Inc. (S)
Monmouth College		Central Jersey Bank & Trust (B) Citibank (S,B)
Mt. Holyoke College		Scudder, Stevens & Clark (S,B)
Muhlenberg College		Internally Managed
Northwestern University		Internally Managed
Oakland University		Ann Arbor Trust Company (S,B)
Oberlin College	*	Capital Guardian Trust Company (S) Wertheim Asset Management Services (S,B) First National Bank of Atlanta (S,B) National City Bank of Cleveland (S,B)
Occidental College	*	Scudder, Stevens & Clark (S,B) Decatur Income Fund (S) Investment Company of America (S) Putnam Investors Fund (S)
Ohio State University		Neuberger Corp. Mutual Fund (S) National Investors Service (B) Huntington Investment Company (B) Tallasi Management (S) Siebel Capital Management (S) Chicago Corp. (S) National City Bank (B)
Ohio University		Andrecom Advisors, Inc. (S,B)
Ohio Wesleyan University		Morgan Guaranty Trust (S,B)
Oregon State Board of Higher Ed.		Dodge & Cox (S,B)
Oregon State Univ. Fdn.		Bank of California (S,B)
Pennsylvania State University		Mellon Bank (S,B)
Philadelphia College of Textiles and Sciences	*	Girard Bank (S,B) Philadelphia National Bank (S,B)
Princeton	*	John Bristol & Co. (S,B) Vilas-Fisher Associates LTD (S,B) Capital Guardian Trust Co. (S,B) Scudder, Stevens & Clark (S,B)

*The Common Fund

Reed College	*	Internally Managed Schroder, Naess & Thomas (S,B)
Rensselaer Polytechnic Inst.		Miller Anderson Sherrerd (S,B) U. S. Trust Co. (B) Brundage, Story & Rose (S,B)
Rhode Island School of Design		Endowment Management & Research Inc. (S,B) Essex Investment Management Co. (S,B) Beck, Mack & Oliver (S,B) Rhode Island Hospital Trust National Bank (S,B)
Rice University		Internally
Rochester Institute of Technology		Lincoln First Bank of Rochester (S,B)
Rutgers, The State University		Chemical Bank of New York (S,B)
St. Norbert College		(Externally managed -- endowment held under Trust Agreements)
Simmons College		Phoenix Investment Counsel of Boston (S,B)
Smith College	*	Morgan Guaranty Trust Co. of New York (S) Capital Guardian Trust Co. (S) Beck, Mack & Oliver (S)
Southern Methodist Univ.		Fayez Sarofim & Company (S,B)
Spelman College		Centennial Capital Corp. New York (S,B) Weiss, Peck & Greer - New York (S,B)
State University of New York at Binghamton		Internally Managed
State University of New York at		Manufacturers & Traders Trust Co. (S,B) Marine Midland Bank (S)
Swarthmore College	*	John W. Bristol & Co. (S,B) Brundage, Story, Rose (S) Grantham, Mayo, Vanotterloo (S)
Sweet Briar College	*	Capitoline Investment Services (S,B)
Syracuse University		Internally Managed
Trinity College	*	Hartford National Bank & Trust Co. (S,B)
Tufts University (2)		Endowment Management & Research (S,B)
University of Akron		First National Bank of Akron (S,B) BancOhio (S,B)
University of Akron Development Fund		BancOhio Akron National Bank (S,B) Goodyear Bank Pooled Income Fund (S,B)
University of Alabama		Internally Managed
University of Arizona		Internally Managed

*The Common Fund

University of Arkansas		Internally Managed First National Bank-Little Rock (S,B)
University of California	*	Internally Managed
University of Chicago		Internally Managed
University of Cincinnati		Scudder, Stevens & Clark (S) Delaware Investment Advisers (S) Timothy E. Johnson Investment Counsel (B)
University of Connecticut		Internally Managed
University of Dayton		Boston Company Financial Strategies, Inc. (S,B)
University of Delaware		Internally Managed Wilmington Trust Co, (S,B) Delaware Trust Co. (S,B) Bank of Delaware (S) Farmers Bank of State of Delaware (S,B)
University of Denver		Internally Managed United Bank Denver(S,B) First National Bank of Denver (S,B) Colorado National Bank (S,B) Mountain States Bank (S,B)
University of Evansville	*	Internally Managed
University of Illinois		First National Bank of Chicago Trust Dept (S,B)
University of Maine		Loomis, Sayles & Co. (S,B)
University of Maryland		Thorndike, Doran, Paine & Lewis Inc. (S,B)
University of Miami		Invesco Capital Management (S,B) Southeast First National Bank of Miami (S,B)
University of Michigan	*	National Bank of Detroit (S,B)
University of Minnesota		First Trust Company of St. Paul (S,B) Investment Advisors Inc. (S,B) Northwestern National Bank of Minneapolis (S,B) T. Rowe Price Associates (S,B) Thorndike, Doran, Paine & Lewis Inc. (S,B) Alliance Capital Management Corp. (S,B)
University of Mississippi (2)	*	Nicholas B. Kronwall Tucson Arizona (S)
University of Missouri		The Boatmen's National Bank of St. Louis (S,B)
University of Nebraska		Omaha National Bank (S,B)
University of Nevada System		First National Bank of Nevada (S,B) Valley Bank of Nevada (S,B)
University of Notre Dame	*	Massachusetts Financial Services (B) Brundage, Story & Rose (S) Stein, Roe & Farnham (S) Capital Guardian Trust Co. (S)
University of Oregon Development (2)		Henderson-Boston Company San Francisco (S,B)

*The Common Fund

University of Pennsylvania		Internally Managed
University of Pittsburgh	*	Mellon Bank (S,B) Pittsburgh National Bank (S,B) Neuberger & Berman (S) Brundage, Story & Rose (S) Jennison Associates (S)
University of Puget Sound		Pringle, Flinn, Elvins & Donahoe (S,B)
University of Richmond	*	Alliance Capital Management (S,B) Wheat Advisory Services (S)
University of Rochester		Internally Managed
University of Santa Clara (2)		McCullough & Andrew Inc. (S,B)
University of Southern California		Western Asset Management Co. (S,B)
University of Tennessee (2)		Lionel D. Edie Co. (S)
University of Texas		Internally Managed
University of Tulsa		Bank of Oklahoma (S,B) First National Bank & Trust of Tulsa (S,B)
University of Vermont		Brundage, Story & Rose (S,B) Howard Bank (S,B)
University of Virginia	*	General American Investments Brundage, Story & Rose (S) John W. Bristol (S) William A. Hobbs (S,B) American National Bank Chattanooga (S,B)
University of Wisconsin Fdn.		Heritage Investment Advisors Inc. Milwaukee (S,B) First Wisconsin National Bank-Madison (S,B)
University of Wisconsin System		Heritage Investment Advisors (S,B)
Vassar College		J. W. Seligman & Co. (S,B)
Virginia Military Institute		First & Merchants National Bk Richmond (S,B) Capitoline Investment Services (S,B)
Wake Forest University		Montag & Caldwell (S,B) T. Rowe Price & Associates (S,B) Templeton, Dobbrow & Vance (S,B) First Union National Bank (S,B) Sterling Management Inc. (S,B)
Washburn College		Hartford National Bank & Trust (S,B)
Washington State University		Smith Barney, Harris Upham & Co. (S,B) Old National Bank of Washington (B)

*The Common Fund

Washington University		St. Louis Union Trust Co. (S,B) Mercantile Trust Co. (S,B) Boatmen's National Bank (S,B) Scudder, Stevens & Clark (B) Thorndike, Doran, Paine & Lewis, Inc. (S)
Wellesley College		Internally Managed
Wesleyan University	*	Brokaw Capital Management (S) Brundage, Story & Rose (S) Drexel Burnham Lambert (S) Scudder, Stevens & Clark (B)
Wheaton College		New England Merchants (S,B)
Whitman College		Internally Managed
Whittier College		Hillside Associates, Inc. (S,B) The Boston Company (S,B)
Willamette University		Dodge & Cox (S) James Miller (S) U. S. National Bank-Oregon (S)
Williams College		Miller Anderson & Sherrerd (S,B) Scudder, Stevens & Clark (S,B)
Yale University		Endowment Management & Research (S,B) Miller Anderson & Sherrerd (S) T. Rowe Price (S) Fischer, Francis, Trees & Watts (B) Wells Fargo (S) Connecticut Bank & Trust (S,B)

Note 1: Internally Managed institutions have no more than 20 percent of total assets managed externally.

Note 2: Institution has at least 50 percent of total assets managed internally and at least 20 percent managed externally.

*The Common Fund

EXHIBIT VI

INDEX OF ENDOWMENT CUSTODIANS (1)

Institution	Custodian
Albion College	Trust Department - National Bank of Detroit
Alfred University	Chemical Bank of New York
Allegheny College	First National Bank-Pennsylvania Mellon Bank
Alma College	Paine Webber Jackson & Curtis, Inc.
American University	American Security Bank
Amherst College	United States Trust Company
Arizona State University	United Bank of Arizona
Baldwin-Wallace College	Cleveland Trust Company
Barnard College	United States Trust Company, New York New York Bank for Savings
Baylor College of Medicine	Bank of the Southwest Baptist Foundation of Texas
Berea College	Morgan Guaranty First Kentucky Trust
Boston University	Boston Safe Deposit & Trust Company
Brandeis University	First National Bank of Boston
Brown University	Morgan Guaranty Trust R.I.H.T. Corp.
Bryn Mawr College	J & W Seligman Connecticut Bank & Trust
Bucknell University (2)	Morgan Guaranty Trust
California Institute of Technology	Security Pacific National Bank
Carleton College	Northwestern National Bank of Minneapolis New England Merchants Bank, Boston Brown Brothers Harriman
Carnegie-Mellon University	Mellon Bank Pittsburgh National Bank
Carroll College	Marshall & Isley Bank Bank of New York First National Bank of Minneapolis

Case Western Reserve University	Central National Bank American Trust Company National City Bank
Clark University	Guaranty Bank & Trust
Colby College	Depository Trust Company
College of Wooster	First Trust Company of Ohio
Colorado College	First National Bank of Colorado Springs
Columbia University	Manufacturers Hanover Bank
Teachers College, Columbia Univ.	Morgan Guaranty Trust Comapny Connecticut Bank & Trust
Connecticut College	Hartford National Bank & Trust Analytic Investment Management Company
Cooper Union	United States Trust
Cornell College	Internally Merchants National Bank
Cornell University	Morgan Guaranty Trust Company
Dartmouth College	Chase Manhattan Bank
Denison University	Ameri Trust Co. National City Bank
Dickinson College	American Bank & Trust Company
Doane College	Hartford National Bank National Bank of Commerce First National Bank
Drake University	Harris Trust & Savings Bank Iowa Des Moines National Bank
Drew University	Bankers Trust Company
Duke University	Wachovia Bank Morgan Guaranty Trust Co.
Eastern Michigan University	Ann Arbor Trust Company
Franklin and Marshall College	National Central Bank
Georgetown University	Chase Investors Fayez Sarofim & Company Riggs National Bank
George Washington University	Riggs National Bank
Hamilton College	Irving Trust Company Bank of New York

Hampton Institute	United States Trust Company Common Fund
Harvard University	State Street Bank & Trust Company
Hendrix College	Commercial National Bank
Hobart and William Smith Colleges	Security Trust Company
Hope College	Old Kent Bank & Trust First Michigan Bank & Trust
Indiana University	Indiana National Bank American Fletcher National Bank Merchants National Bank
Johns Hopkins University	Fiduciary Trust Company of New York Common Fund First National Bank of Maryland
Kenyon College	Cleveland Trust Company
Lafayette College	Eastern National Bank & Trust Company
Lehigh University	Morgan Guaranty Trust Company
McGill University	Royal Trust Company
Marquette University	Marshall & Ilsley Bank Heritage Investors
Massachusetts Institute of Tech.	First National Bank of Boston
Mercer University	Internal
Michigan State University	Detroit Bank & Trust Company Ann Arbor Trust Common Fund
Middlebury College	Chase Manhattan Bank Bank of New York
Monmouth College	Central Jersey Bank & Trust Citibank
Mount Holyoke College	New England Merchants National Bank
Muhlenberg College	Janney Montgomery Scott
Northwestern University	State Bank, Evanston Money Market, Savings, Cash
Oakland University	Ann Arbor Trust Company
Oberlin College	National City Bank (Cleveland)
Occidental College (2)	Security Pacific National Bank

Ohio State University	BancOhio National Bank National City Bank Huntington National Bank
Ohio University	First Trust Company-Ohio
Ohio Wesleyan University	Morgan Guaranty Trust Company
Oregon State Board of Higher Education	First National Bank of Oregon
Oregon State University Foundation	Bank of California
Pennsylvania State University	Mellon Bank
Philadelphia College of Textiles & Sc.	Philadelphia National Bank Girard Bank Common Fund
Princeton University	United States Trust Company of New York
Reed College	First National Bank of Oregon
Rensselaer Polytechnic Institute	National Commercial Bank Harris Bank Bankers Trust
Rhode Island School of Design	Rhode Island Hospital Trust National Bank
Rochester Institute of Technology (2)	Lincoln First Bank Central Trust Company Marine Midland Trust Company Security Trust Company
Rockefeller University	Chase Manhattan Bank
Rutgers, The State University	Chemical Bank of New York
St. Norbert College	Citizens Bank of Sheboygan Harris Trust & Savings Bank, Chicago
Simmons College	New England Merchants Trust Company
Smith College	Harris Bank Morgan Guaranty Trust Company Bank of New York Northampton National Bank
Southern Methodist University	First National Bank-Dallas
Spelman College	Chase Manhattan Bank
Stanford University	Wells Fargo Bank
State University of New York at Binghamton	Internal
State University of N.Y. at Buffalo	Manufacturers & Traders Trust Company Marine Midland Bank

Swarthmore College	Girard Bank Fidelity Bank
Sweet Briar College	United Virginia Bank
Syracuse University	Key Bank of Central New York
Trinity College	Hartford National Bank & Trust Company
Tufts University (2)	First National Bank of Boston
University of Akron	First National Bank of Akron BancOhio
University of Akron Development Fdn.	Banc Ohio National Bank Goodyear Bank
University of Alabama	Internal
University of Arizona	Internal
University of Arkansas	Internally First National Bank-Little Rock
University of California	Bank of California
University of Chicago	Morgan Guaranty
University of Cincinnati	Fifth Third Bank-Cincinnati
University of Connecticut	Connecticut Bank & Trust
University of Dayton	Third National Bank & Trust Company
University of Delaware	Wilmington Trust Company Delaware Trust Company Bank of Delaware Farmers Bank of Delaware
University of Denver	United Bank of Denver First National Bank of Denver Colorado National Bank Mountain States Bank
University of Evansville	Internal
University of Illinois	First National Bank of Chicago
University of Maine	Merrill Trust Company Merchants National Bank State of Maine
University of Maryland	Union Trust Company of Maryland Treasurer of State
University of Miami	Security Trust Company Morgan Guaranty Trust Company-New York Southeast First National Bank-Miami Florida National Bank of Miami
University of Michigan	National Bank of Detroit Detroit Bank & Trust Company Common Fund

University of Minnesota	First National Bank of Minneapolis North West National Bank of Minneapolis
University of Mississippi	Deposit Guaranty National Bank, Jackson First National Bank-Jackson
University of Missouri	The Boatmen's National Bank First National Bank-St. Louis State of Missouri
University of Nebraska	Omaha National Bank
University of Nevada	First National Bank Valley Bank
University of Notre Dame	Chase Manhattan American Bank, South Bend First Bank, South Bend
University of Oregon Development Fd.	United States National Bank of Oregon
University of Pennsylvania	Fidelity Bank
University of Pittsburgh	Mellon Bank Pittsburgh National Bank
University of Puget Sound	Puget Sound National Bank
University of Richmond	Central Fidelity Bank First & Merchants National Bank
University of Rochester	Lincoln First Bank of Rochester Security New York State Corporation Central Trust Company
University of Santa Clara (2)	Barclays Bank of California
University of Southern California	United California Bank Pacific Securities Depository Trust Co.
University of Tennessee	United American Bank, Knoxville
University of Texas	Treasurer of the State
University of Tulsa	Bank of Oklahoma First National Bank of Tulsa
University of Vermont	Howard Bank Brundage Story & Rose
University of Virginia	Fiduciary Trust Company of New York United Virginia Bank American National Bank of Chattanooga Virginia National Bank
University of Wisconsin	First Wisconsin National Bank
University of Wisconsin System	Treasurer of the State Morgan Guaranty Trust
Vassar College	J & W Seligman & Company

Virginia Military Institute	First & Merchants National Bank Capitoline Investment Services
Wake Forest University	Wachovia Bank & Trust Company First Union National Bank
Washburn College	Hartford National Bank & Trust Company
Washington State University	Smith Barney Harris Upham & Company Old National Bank of Washington
Washington University	St. Louis Union Trust Company Mercantile Trust Company Boatmen's National Bank First National Bank DTC
Wellesley College	Internally State Street Bank and Trust
Wesleyan Univeristy	U. S. Trust Company Shawmut Bank
Wheaton College	New England Merchants National Bank
Whitman College	Internal
Whittier College	Bank of America Quaker City Federal Savings & Loan Common Fund
Willamette Univerity	United States National Bank of Oregon
Williams College	U. S. Trust Company of New York
Yale University	Chemical Bank Connecticut Bank & Trust

Note 1: Internal means an institution serves as custodian for at least 80 percent of its assets.

Note 2: Institution serves as custodian for at least 50 percent of assets, and at least 20 percent of assets are external.

APPENDIX I

EXPLANATION OF METHOD USED FOR MEASURING PERFORMANCE OF PORTFOLIO MANAGER

The choice between the geometric average return (average total return) figure and the internal rate of return figure depends on what it is one wishes to measure: the skill of the individual or committee which actually manages the investment of the endowment fund, or the success of the investment management coupled with the decision or policy that governs withdrawal of funds from the endowment (and contribution of funds to the endowment). Both figures are "correct," but the internal rate of return should not be used for judging portfolio management, nor should the goemetric average not be used for judging the overall results of portfolio management and decisions on when to add the withdraw funds.

For most endowment funds the geometric average is probably the more important figure. This is particularly true if additions of funds to an endowment and withdrawals of funds do not reflect any judgment skill, but simply follow a policy of adding funds when contributions are received and withdrawing income either when the dividends and interest are received or at predetermined dates. The reason for looking at the internal rate of return in addition to the geometric average is to determine how well the investor is timing additions and withdrawals.

College officials often object to the use of the geometric average, protesting that: "This average assumes that income is reinvested, and we don't reinvest income." It is quite true that they do not reinvest income, but if what is to be determined is the quality of investment performance being achieved by the manager of the endowment fund, then the performance record of the manager should not be penalized by unfortunate timing of withdrawals over which the manager has no control.

Adapted from Performance Measurements and Investment Objectives for Educational Endowment Funds by J. Peter Williamson (New York: The Common Fund, 1972),

APPENDIX II

PERFORMANCE OF POOLED INVESTMENT FUNDS

EXPLANATION OF COMPUTATIONS

The computations required to create the tabular and performance data used in the comparative performance of pooled investment funds are accomplished by a computer program entitled FUNDPER. The program FUNDPER draws on the basic data file compiled for each individual investment pool. Data contain the endowment pool's year-end unit value (at market) and the dollar value per unit of income received for the year. Drawing on the basic file, FUNDPER first creates a yearly chart of tabulated data as shown below; for any number of consecutive years within the limits of the basic data file it calculates various performance statistics.

STATISTICAL SUMMARY SHEET

INSTITUTIONAL CODE NAME - SP500

COL 1 YEAR	COL 2 BASE	COL 3 UNIT	COL 4 APPRE	COL 5 INCOME	COL 6 YLD PCT	COL 7 GRO PCT	COL 8 TOT RET PCT
1974	100	86					
1975	110.69	95.19	9.19	3.71	4.31	10.69	15
1976	121.26	104.28	9.09	3.76	3.95	9.55	13.5
1977	116.84	100.48	-3.8	4.36	4.18	-3.64	0.54
1978	111.08	95.53	-4.95	4.91	4 89	-4 93	-0.04
1979	119.66	102.91	7.38	5.29	5 54	7.73	13.26
ARITH AVGS 5 YRS ENDING IN 1979					4.57	3.88	8.45
GEOM AVGS					4.57	3.66	8.24

APPRECIATION	19.66 PERCENT
CORRESPONDING AVG ROR	3.66 PERCENT
APPREC WITH INC REINV	49.06 PERCENT
CORRESPONDING AVG ROR(AV T/R)	8.31 PERCENT

Exhibit A contains examples of the mathematics used by FUNDPER for that portion of the tabulated data which is computed. The balance of the tabulated data is reproduced from the basic data file.

An explanation of the columns for 1979 in the above chart is as follows:

Col. 1 Fiscal Year: July 1/June 30.

Col. 2 Base: This gives the first year the unit value is available an index of 100 and adjusts the succeeding unit values accordingly. In the above example the first year the S&P 500 unit value figures were available was the fiscal year ending 6/30/74.

Col. 3 Unit Value: Supplied by participating institution.

Col. 4 Appreciation: Appreciation is computed by subtracting the 1978 unit value from the 1979 unit value.

Col. 5 Income Per Unit: Supplied by participating institution.

Col. 6 Yield Percent: Yield percent is computed by taking the 1979 income per unit, dividing it by the 1978 unit value, and multiplying by 100.

Col. 7 Growth Percent: Growth percent is computed by taking the 1979 appreciation, dividing it by the 1978 unit value, and multiplying by 100.

Col. 8 Total Return Percent: Total return percent is computed by adding the 1979 appreciation to 1979 income, then dividing by the 1978 unit value, and multiplying by 100.

Exhibit B contains examples of the mathematics used by FUNDPER in determining arithmetic and geometric averages of yield, growth, and total return for the period specified. They are computed as follows:

1. Arithmetic Average 5 Years Ending 1979: Add either the 5 yearly yield, growth, or total return percentages and divide by 5.

2. Geometric Average 5 Years Ending 1979: Add one to each of the 5 yearly yield, growth, or total return percentages expressed as a decimal, multiply these figures, then take the fifth root of that value, subtract 1, and multiply by 100.

Exhibit C contains examples of the mathematics used by FUNDPER in making comparative performance computations. Using the five-year period 1974-1979 as an example, the four comparative performance percentages are computed as follows:

1. Total Percent Appreciation: The total percent appreciation is computed by dividing the 1979 unit value by the 1974 unit value, subtracting 1, and multiplying by 100.

2. Corresponding Annual Geometric Average Growth Rate: The corresponding annual geometric growth rate is computed by taking the fifth root of the 1979 unit value divided by the 1974 unit value, subtracting 1, and multiplying by 100.

3. Total Percent Appreciation with Income Reinvested: The total percent appreciation with income reinvested is calculated as follows:

   a. Determining the number of units that could have been purchased with income of one unit for the year 1974-1975, using the average of the 1974 and 1975 unit values as the price of a new unit.

   b. Adding the new units so purchased to the original unit held.

c. Determining the income on the new total units held for the next year 1975-1976, calculating the number of units that could have been purchased with income in that year, again using the average beginning and end of year unit values as the price of new units, and so on to the end of the five years, i.e., the end of 1979.

d. Calculating the total value of the units held as of 1979 multiplied by the 1979 unit value, and dividing this by the 1974 unit value, subtracting 1, and multiplying by 100.

4. Corresponding Annual Geometric Average Growth Rate: The corresponding annual geometric average growth rate (with income reinvested) is computed by adding 1 to the total of the units purchased during each of the five years, multiplied by the unit value at the end of 1979, divided by the 1974 unit value, taking the fifth root, subtracting 1, and multiplying by 100.

Exhibit A (APPENDIX II)

Tabulated Data Computations

Col. 4 Appreciation

1979 Unit Value - 1978 Unit Value
102.91 - 95.53 = 7.38

Col. 6 Yield Percent

(1979 Income/1978 Unit Value) X 100
(5.29/95.53) X 100 = 5.54%

Col. 7 Growth Percentage

(1979 Appreciation/1978 Unit Value) X 100
(7.38/95.53) X 100 = 7.73%

Col. 8 Total Return Percent

(1979 Appreciation + 1979 Income)/1978 Unit Value X 100
[(7.38 + 5.29)/95.53] x 100 =13.26%

Exhibit B (APPENDIX II)

Arithmetic and Geometric Averages

Arithmetic Average Total Return Percentage*

(Total Return Percentage for 1974-75 + 1975-76 + 1976-77 + 1977-78 + 1978-79)

$\frac{15.0 + 13.63 + .54 + (-.04) + 13.26}{5}$ = 8.45% for 5 years ending June 30, 1978

Geometric Average Total Return Percentage*

(([Total Return for (1974-75 + 1) X (1975-76 + 1) X (1976-77 + 1) X
(1977-78 + 1) X (1978-79 + 1)] ↑ (1/5)) - 1) X 100

(([(.15 + 1) X (.1350 + 1) X (.0054 + 1) X (-.0004 + 1) X (.1326 + 1)]
↑(1/5)] - 1) X 100 = 8.24%

*Note: Average yield and growth percentages are calculated in the same manner.

Exhibit C (APPENDIX II)

Comparative Performance Measurement Computations

1. Total Percent Appreciation

$$\left(\frac{\text{1979 Unit Value}}{\text{1974 Unit Value}} - 1\right) \times 100$$

$$\left(\left(\frac{102.91}{86.00}\right) - 1\right) \times 100 = 19.66\%$$

2. Corresponding Annual Geometric Average Growth Rate Percentage

$$\left(\left(\left(\frac{\text{1979 Unit Value}}{\text{1974 Unit Value}}\right) \uparrow (1/5)\right) - 1\right) \times 100$$

$$\left(\left(\left(\frac{102.91}{86.00}\right) \uparrow (1/5)\right) - 1\right) \times 100 = 3.66\%$$

3. Total Percent Appreciation with Income Reinvested

$$\frac{\text{(1975 Income)}}{\text{Average of 1974 and 1975 Unit Values}} = \text{Units Purchased with 1975 Income}$$

$$\frac{3.71}{(86.00 + 95.19)} = .04095 \text{ Units}$$

$$\frac{\text{(1 + Units Purchased with 1975 Income) X 1976 Income Per Unit}}{\text{Average of 1975 and 1976 Unit Values}} = \text{Units Purchased with 1976 Income}$$

$$\frac{(1 + .04095) \times 3.76}{(95.19 + 104.28)/2} = .03924$$

Exhibit C (APPENDIX II)--Continued

$$\frac{1 + \text{Units Purchased with 1975 + 1976 Income) X 1977 Income Per Unit}}{\text{Average of 1976 and 1977 Unit Values}} = \text{Units Purchased with 1977 Income}$$

$$\frac{(1 + .04095 + .03924) \times 4.36}{(104.28 + 100.48)/2} = .04600 \text{ Units}$$

$$\frac{1 + \text{Units Purchased with 1975+ 1976 +1977 Income) X 1978 Income Per Unit}}{\text{Average of 1977 and 1978 Unit Values}} = \text{Units purchased with 1978 Income}$$

$$\frac{(1 + .04095 + .03924 + .04600 \times 4.91}{(100.48 + 95.53)/2} = .05642 \text{ Units}$$

$$\frac{(1 + \text{Units Purchased with 1975+ 1976 + 1977 +1978 Income) X Income Per Unit}}{\text{Average of 1978 and 1979 Unit Value}} = \text{Units Purchased with 1979 Income}$$

$$\frac{(1 + .04095 + .03924 + .04600 + .05642 \times 5.29}{(95.53 + 102.91)/2} = .06304 \text{ Units}$$

$$\left[\left[\frac{(1 + \text{Units Purchased with 1975+ 1976 + 1977 + 1978 + 1979 Income) X 1979 Unit Value}}{\text{Unit Value for 1973-74}}\right] - 1\right] \times 100 =$$

$$\frac{(1 + .04095 + .03924 \quad .04600 + .05642 + .06304) \times 102.91 - 1 \times 100}{86.00} = 49.06$$

Appreciation with Income Reinvested

Appreciation with Income Reinvested

4. Corresponding Annual Geometric Growth Rate

$$\left[\left[\frac{(1 + \text{Total of Income Units Purchased from 1975 thru 1979) X 1979 Unit Value}}{\text{1974 Unit Value}}\right] \uparrow (1/5)\right] - 1 \times 100$$

$$\left[\left[\frac{(1 + .04095 \quad .03924 \quad .04600 + .05642 + .06304) \times 102.91}{86.00} \uparrow (1/5)\right] - 1\right] \times 100 = 8.31\%$$

Corresponding Average ROR (AV T/R)